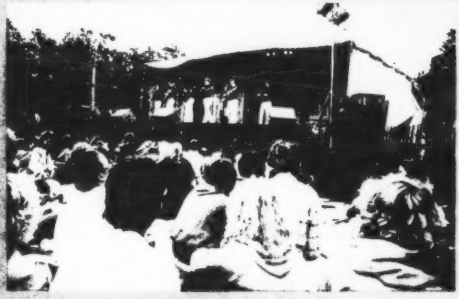
Manitoba Facts '86



Manitoba

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MANITOBA FACTS '86

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Alfred Boyd
Sept. 1870—Dec. 1871

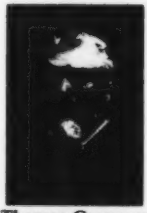
Marc A. Girard
Dec. 1871—Mar. 1872
July—Dec. 1874

H.J.H. Clarke
Mar. 1872—July 1874

Robert A. Davis
Dec. 1874—Oct. 1878

John Norquay
Oct. 1878—Dec. 1887

D.H. Harrison
Dec. 1887—Jan. 1888



Thomas Greenway
Jan. 1888—Jan. 1900

H.J. Macdonald
Jan.—Oct. 1900

Rodmond Roblin
Oct. 1900—May 1915

MANITOBA PREMIERS

T.C. Norris
May 1915—Aug. 1922

John Bracken
Aug. 1922—Jan. 1943

Stuart S. Garson
Jan. 1943—Nov. 1948

D.L. Campbell
Nov. 1948—June 1958

Duff Roblin
June 1958—Nov. 1967

Walter Weir
Nov. 1967—July 1969

Edward Schreyer
July 1969—Oct. 1977

Sterling R. Lyon
Oct. 1977—Nov. 1981

Howard Pawley
Nov. 1981

MANITOBA'S HISTORY

GEOLOGICAL HISTORY

The land we know as Manitoba has gone through many geological changes since the earth was formed, about 4,600 million years ago. As the crust of the earth evolved, great mountain chains were developed, but as a result of wind and water action they were eroded away into a flat plain. Volcanoes, as well as marginal seas, developed 3,000 million years ago and again about 2,000 million years ago, and their rocks were piled high into mountain chains which were in turn eroded and buried beneath younger rocks. Over the next 1,000 million years, during a period known as the Precambrian eon, the Manitoba landmass remained stable and was gradually eroded into a vast, flat plain. Large expanses of rock formed during this period can still be seen in the Precambrian Shield. During this time the major metallic mineral deposits of Manitoba, such as those found at Flin Flon, Thompson, and Lynn Lake, were formed.

About 570 million years ago began a period of the earth's history called the Phanerozoic Eon (time of evident life). The first portion of this period, known as the Paleozoic Era (time of old life), was marked in Manitoba by gentle repeated advance and retreat of vast continental seas, but not by further periods of mountain building such as characterized Precambrian time.

Paleozoic seas first covered Manitoba about 570 million years ago, when sands and shales of the Cambrian Period were deposited. The first well-preserved fossil shells are found in Cambrian strata. Later gentle uplife and erosion, however, removed most of these strata from Manitoba, so the first sedimentary limestone rocks preserved are those of the Ordovician Period (about 440-500 million years ago). These limestones include the well-known Tyndall building stone. The next strata laid down were the dolomites of the Silurian period, when the first sea animals with backbones (vertebrate fish) appeared.

Following a period of gentle uplift and erosion approximately 395 million years ago, seas of the Devonian period advanced over much of Manitoba. Limestones and dolomites were deposited, along with widespread beds of salt and potash and local, thick coral and algal reefs. The Devonian is sometimes called the Age of Fishes because of their prolific development at this time. Land plants also developed for the first time.

The Early Carboniferous, or Mississippian period, began about 345 million years ago. During this time, land plants proliferated and the first major coral beds began to form. Seas once again covered Manitoba and the decaying bodies of the abundant tiny animals that lived in the sea were deposited in the sediments and eventually transformed into oil, which we now find trapped in Mississippian rocks in the Virden area. During the interval from 310 to 180 million years ago, the area was gently uplifted, tilted slightly, and subjected to considerable erosion.

Beginning about 180 million years ago, Mesozoic (intermediate life) formations of the Jurassic period were deposited. In Manitoba, these beds consist primarily of sands and shales, from debris that was being stripped from rising mountain ranges far to the west, in what is now British Columbia. Following another short period of uplift and erosion, upper Mesozoic sands and shales of the Cretaceous period were deposited. This material forms the hills of southern and western Manitoba — the Pembina, Riding, Duck, and Porcupine Mountains.

Although the Mesozoic era has been called the Age of Reptiles, we have no record of dinosaurs in Manitoba, only large marine reptiles such as the plesiosaurs and mosasaurs that roamed the seas. Remains of these creatures have been found preserved in thin beds of bentonite or volcanic ash, in quarries in the Morden area. Warm-blooded mammals, birds, and modern plants began to appear in Mesozoic times. About 65 million years

ago, at the beginning of the Cenozoic (modern life) period, all of the great Mesozoic dinosaurs and most of the marine reptiles suddenly disappeared and warm-blooded mammals, birds and modern plants, particularly grasses (including forage and cereal grain plants), became dominant. The only limited occurrence of Cenozoic strata in Manitoba is at Turtle Mountain.

The final great event that shaped the face of Manitoba was the Ice Age. For about a million years great sheets of ice slowly scraped across the land, pushing rock, sand and earth in front of them. This material, known as glacial till, covers much of what is now Manitoba.

As the last glaciers melted, the water could not drain into what is now Hudson Bay because the ice blocked this outlet, so it formed several glacial lakes. The biggest of these was Lake Agassiz, which covered more than half of Manitoba and part of Saskatchewan, and extended far into the northern United States. As the lake receded, it left a number of abandoned beaches, many of which can still be seen. Lakes Winnipeg, Manitoba, and Winnipegosis are remnants of this great glacial lake.

EARLY HISTORY

People of Indian ancestry have been living in Manitoba for at least 12,000 years. Archaeologists subdivide this immense span of cultural history into three major stages: Paleo-Indian, Archaic, and Woodland.

Although it is possible that people were living in Manitoba as early as 50,000 years ago, the oldest reliable evidence we have of human colonization of the province dates back some 12,000 years, when ice sheets were melting northward and the countryside west of the Manitoba Escarpment became capable of supporting life. Manitoba's Paleo-Indian population at that time was small, because the vegetation that invaded the newly exposed land surface comprised a heavy spruce forest that failed to attract in any numbers the big-game animals (mammoths, big-horned bison, camels, horses) that these early people favoured as food. Between 12,000 and 9,000 years ago, however, the climate became warmer and drier, and the boreal forest was replaced by grassland. This change attracted bison in large numbers, which in turn drew more people into southwestern Manitoba than had ever lived there before. These migrations were, no doubt, stimulated in part by periodic droughts on the high plains to the south and southwest. In this same period, the low country between the escarpment and the Canadian Shield was inundated by Lake Agassiz and the shield region itself remained buried beneath the ice sheets. By 7,000 years ago, however, the glacier had entirely disappeared from Manitoba and Lake Agassiz had drained away.

The technology of the Paleo-Indian period was fundamentally stone-age, or "lithic," in character, a pattern that continued right to the coming of Europeans.

About 5,000 years ago, new implements appeared on the southern grasslands and parklands of Manitoba: a variety of tools — mainly spear and lance-points — made of beaten native copper obtained from Lake Superior. These weapons, and their more typical and numerous stone counterparts, were used to sustain a nomadic way of life that continued to depend heavily on bison hunting. This expression of the Archaic stage is, by virtue of its geographic situation, known as Prairie Archaic.

In the forests of the Canadian Shield, the descendants of the Paleo-Indians developed a shifting, itinerant way of life made possible by fishing and the hunting of forest animals such as woodland caribou and moose. The basic technology was lithic, by means of which weapon-points, knives, and scraping tools were chipped out of fine-grained stones found in abundance in the shield country. Because of the countryside in which it is found, this regional expression of the Archaic stage is called Shield Archaic.

The Prairie Archaic ended on the southern grasslands and parklands with the introduction of three major innovations: pottery-making, burial mounds, and the bow and arrow. The appearance of these traits marked the advent of a new stage, Woodland, so named because most of its distinguishing characteristics originated in the woodlands of the eastern United States and southern Ontario. During Woodland times the grassland and parkland-dwellers developed a new means of hunting buffalo. This was the famous buffalo pound, a sort of corral or brush enclosure into which herds of bison were driven and easily slaughtered. This technique was an elaboration or development upon the stampede-and-jump, originally perfected in Paleo-Indian times.

Trade became very important to the southern Manitoba Woodland people, who imported such exotic materials as pipestone (catlinite) from Minnesota, shell from the Gulf of Mexico and British Columbia, and volcanic glass (obsidian) from Wyoming. Native copper from the Lake Superior region was used mainly to fashion ornaments with which to decorate the body. The Woodland stage in southern Manitoba lasted from about 2,500 years ago (500 B.C.) to the coming of Europeans.

The art of manufacturing pottery was introduced into the northern Canadian Shield country about 2,000 years ago, and this marks the end of the Shield Archaic stage and the beginning of the Woodland period in that region. One very distinctive characteristic of Woodland culture in the north is the rock painting, or "pictograph," created by the application of red and orange mineral pigments to the faces of rock outcrops and cliffs. This artistic tradition is expressed in a variety of forms dominated by human and animal figures. In the shield area of southeastern Manitoba centring on the Whiteshell, Indians created the famous "boulder mosaics," or petroforms. These are arrangements of boulders, which depict circles, ellipses, lines, the forms of animals (notably turtles and snakes), and human beings. Some of the figures were oriented in such a way as to coincide with the rising of the sun, moon and, possibly, other heavenly bodies at particular times of the year. Astronomical observations were made in accordance with the placement of these boulder alignments.

The history of the land around Hudson Bay is characterized by a tradition that does not readily fall within these three stages. Around 3,500 years ago, bands of people drifted into the extreme north of Manitoba from Alaska. Evidence of their arrival is seen in campsites that contain very small, delicately made flint tools that were used in scoring and cutting bone, manufacturing leather goods, and hunting animals. Indeed, these minute implements were so distinctive that they have been accorded a name of their own — the Arctic Small Tool tradition. The people who made them were the forerunners of the Inuit, whose classic Arctic culture was encountered by the Europeans who first set foot in northern Manitoba early in the 17th century.

MODERN HISTORY

The first European to set foot in present-day Manitoba was Captain Thomas Button, who in 1612 wintered two ships at Port Nelson on Hudson Bay, near the mouths of the Nelson and Hayes Rivers. In 1690 and 1691 Henry Kelsey explored northern Manitoba from Hudson Bay as far as the Saskatchewan River, near The Pas. A French party led by La Verendrye explored the Red and Winnipeg rivers in the years 1733 to 1738 and built several outposts.

In 1670, King Charles II of England gave sovereignty over a large part of the continent to "The Governor and Company of Adventurers of England Trading into Hudson's Bay," or the Hudson's Bay Company as it has come to be known.

The company set up fur trading posts to exploit the country's wealth. Among their major posts were York Factory, at the mouths of the Nelson and Hayes Rivers, and Fort Prince of Wales at the mouth of the Churchill River. The latter was a large stone fort,

built between the years 1731 and 1771 and captured and badly damaged by the French in 1782. The Hudson's Bay Company then built Fort Churchill in 1783 and continued to use that site until 1933.

After 1740, in the wake of La Verendrye, traders from New France pushed across the southern part of Manitoba, but later were replaced by teams of English-speaking "pedlars" and French-Canadian voyageurs who drove swift canoes from Montreal to the West and back, seeking furs.

Intense rivalry for furs developed between the Montreal-based North West Company and the Hudson's Bay Company. Their battle for the fur trade resulted in both companies building forts throughout the plains and Alexander Mackenzie, an employee of the North West Company, pushed the chain of forts into the Rocky Mountains and the Arctic. The rivalry came to its height in the Red River and Assiniboine River valleys in Manitoba, where open warfare broke out.

During the same period the first agricultural settlement was established by Lord Selkirk, a Scottish nobleman, who sent a number of colonists to land he had secured from the Hudson's Bay Company in 1811. The settlers sold their agricultural produce to the fur traders based at Fort Douglas, in what is now the Point Douglas area of the city of Winnipeg. Severe winter, flooding of the Red and Assiniboine Rivers in some years, and drought in others produced serious hardships for the settlers.

The colony was also caught in the fur trade war and in 1816 Governor Robert Semple and 19 colonists were killed in a battle with the Metis at Seven Oaks, in what is now the suburb of West Kildonan. The Metis had been urged on by the North West Company. However, the settlement survived and its permanent way of life materially affected the semi-nomadic way of life of Red River.

In 1869 the Hudson's Bay Company agreed to relinquish control of its territory in western Canada upon payment of £300,000 by the Canadian government. However, no clear terms were spelled out for the people of the Red River area and during negotiations on their status resistance developed in the colony. The Metis, a mostly French-speaking people of white and Indian blood, opposed the Canadian proposals under the leadership of Louis Riel. Riel succeeded in uniting both the French and English-speaking groups and established a locally elected provisional government in December, 1869.

Delegates of this provisional government negotiated terms with the federal government that led to Parliament passing the Manitoba Act May 12, 1870, under which Manitoba joined the other provinces in Confederation. The Act was proclaimed, making Manitoba a province of Canada, on July 15, 1870.

When Manitoba came into existence in 1870 it was known as the "postage-stamp" province and was only about one-eighteenth of its present size. Its western boundary was longitude 99° W. (just west of Crystal City-Gladstone); the northern boundary was latitude 50°30' (Oak Point-Winnipeg Beach); the eastern boundary was 96° W. (about Whitemouth-Piney). The southern boundary was the 49th parallel, the border with the United States. However, the eastern and western boundaries became very awkward because they did not correspond with land survey lines, so in 1877 they were shifted slightly, to the first township lines west of the two lines of longitude.

In 1881 the western boundary was extended to its present location and the northern boundary to latitude 52°50'. The eastern boundary was not determined until 1884, when the Judicial Committee of the Privy Council in England settled a dispute between Ontario and the federal government (involving Manitoba) by ruling that it should be set at the Northwest Angle of the Lake of the Woods.

In 1912 Manitoba's present northern boundary was set at the 60th parallel.

The years 1889-90 saw the development of one of the most vexing problems in the province's history — the Manitoba School Question — and a related one concerning official languages. In 1890 the legislature passed the Public Schools Act, which abolished the dual school system and teaching in the French language. The issue was whether it had the power to do away with the denominational schools established in 1871 under the Manitoba Act. The legislature in 1890 also abolished the use of French in its debates and proceedings, and in the courts.

The Manitoba School Question was a major constitutional, legal, and political controversy for Canada during the next six years. In 1897 a compromise was worked out, providing for religious exercises under certain conditions and the use of languages other than English for teaching. However, the number of languages used multiplied to the point that it was believed not only Manitoba's school system was threatened, but also her position in Confederation. In 1916 the legislature abolished the use of all languages except English in the schools. The matter remained a topic of controversy for many years.

In 1970 changes in provincial legislation again made French a language of instruction in Manitoba public schools. The Supreme Court of Canada in 1979 ruled invalid Manitoba's Official Language Act of 1890.

PEOPLE OF MANITOBA

Manitoba enjoys a rich population mix, with people from every continent and virtually every country in the world providing a wide infusion of cultures and a broadened heritage. The first settlers to join the original Native population were English-speaking and French-Canadian fur traders, boosted by agrarian-based Selkirk settlers from Scotland in 1811. Agrarian settlement became a major factor after 1870, with the influx of English-Canadians from Ontario, followed by additional French-Canadians from Quebec via New England and others direct from Quebec and France. Mennonites from Russia first arrived in 1874, followed by Icelanders the next year. In 1891 the cosmopolitan nature of Manitoba was further broadened with the arrival of the first of substantial numbers of Ukrainians. An immigration wave from many European countries began about 1896 and lasted until 1914. Immigration on a large scale resumed in the 1920s, to about 1930. It was boosted by a modest influx shortly after World War Two and, particularly in the past two decades, by people from other continents, including the Caribbean, South America, Africa, and Asia, to add to the multicultural make-up of the province.

Among the ethnic groups in Manitoba, the 1981 census lists 373,995 with origins in the United Kingdom and Ireland (including 217,755 English, 72,410 Scottish, 45,005 Irish, 36,360 combined designations and 2,455 Welsh); 74,045 French, 46,485 "British and Other", 12,400 "British and French", 8,820 "French and Other", 59,920 Native (including 38,065 status Indians, 17,025 Metis and 4,695 non-status Indians), 108,140 German, 99,795 Ukrainian, 28,445 Polish, 33,875 Netherland, 25,175 Scandinavian, 14,950 Jewish, 11,660 Filipino, 9,585 Italian, 7,830 Portuguese, 7,065 Chinese, 6,455 Belgian, 5,055 Indian-Pakistani and 4,160 Hungarian. Other ethnic groups below 4,000 population listed in the 1981 census include Indo-Chinese, Japanese, Latin Americans, and Caribbean, and smaller numbers from almost every country in the world.

Here is how Manitoba's population has grown since Confederation:

1871	25,228	1951	776,541	1981	1,026,241
1891	152,506	1961	921,686	1983	1,049,200
1911	461,394	1971	988,000	1984	1,059,100
1931	700,139	1976	1,021,500	1985	1,070,300

In its early years Manitoba was an agricultural province, and the bulk of the population lived on farms or in small rural villages. A shift to urban living was noticeable as

early as the turn of the century and rapidly increased in scope, so that today 70 per cent of the population lives in large urban centres.

More than half the population lives in Winnipeg, Manitoba's capital and its main manufacturing and distribution centre, which has about 590,000 people.

Other Manitoba cities and their populations (1981 census) are Brandon, 36,242; Flin Flon, 7,894; Portage la Prairie, 13,086; and Thompson, 14,288.

TOWNS — Altona, 2,757; Beausejour, 2,462; Birtle, 887; Boissevain, 1,660; Carberry, 1,510; Carman, 2,408; Churchill, 1,308; Dauphin, 8,971; Deloraine, 1,136; Emerson, 762; Gillam, 1,427; Gimli, 1,550; Gladstone, 964; Grandview, 1,013; Hartney, 490; Killarney, 2,342; Leaf Rapids, 2,356; Melita, 1,156; Minnedosa, 2,637; Morden, 4,579; Morris, 1,570; Neepawa, 3,425; Oak Lake, 369; Rapid City, 431; Rivers, 1,107; Roblin, 1,953; Russell, 1,660; Selkirk, 10,037; Snow Lake, 1,853; Souris, 1,731; Steinbach, 6,676; Stonewall, 2,210; Swan River, 3,782; The Pas, 6,390; Virden, 2,940; Winkler, 5,046; Winnipeg Beach, 565.

VILLAGES — Arborg, 974; Benito, 441; Binscarth, 472; Bowsman, 454; Cartwright, 384; Crystal City, 489; Dunnottar, 287; Elkhorn, 509; Erickson, 540; Ethelbert, 474; Garson, 318; Gilbert Plains, 812; Glenboro, 741; Gretna, 545; Hamiota, 728; Lac du Bonnet, 985; MacGregor, 795; Manitou, 861; McCreary, 618; Minitonas, 628; Niverville, 1,329; Notre Dame de Lourdes, 627; Pilot Mound, 838; Plum Coulee, 592; Powerview, 691; Riverton, 657; Rossburn, 696; St. Claude, 592; St. Lazare, 414; St. Pierre-Jolys, 919; Ste. Anne, 1,338; Ste. Rose du Lac, 1,090; Shoal Lake, 835; Somerset, 596; Teulon, 925; Treherne, 743; Waskada, 239; Wawanesa, 492; Winnipegosis, 855.

UNINCORPORATED COMMUNITIES — Berens River, 919; Camperville, 639; Cranberry Portage, 960; Cross Lake, 2,050; Duck Bay, 696; East Selkirk, 985; Lorette, 1,092; Lynn Lake, 2,142; Moose Lake, 868; Norway House, 3,000; Oakbank, 1,277; Pinawa, 2,011; Pine Falls, 885; St. Adolphe, 928; South Indian Lake, 842; Stony Mountain, 1,313; Wabowden, 650.

In 1985 there were 17,513 live births in Manitoba (16.4 per thousand population), 8,830 deaths (8.3 per thousand), 8,296 marriages (7.8 per thousand), and 123 stillbirths (7.0 per thousand live births).

GEOGRAPHY

Manitoba is the easternmost of the three Prairie provinces. It is bounded on the north by the Northwest Territories, on the west by Saskatchewan, on the south by the American states of North Dakota and Minnesota, and on the east by Minnesota and Ontario. On the northeast, Manitoba has 645 kilometres of coastline on Hudson Bay.

The area of Manitoba is 649,947 km^2 (250,946 square miles). The land surface is 548,355 km^2 (211,721 square miles) and water 101,592 km^2 (39,225 square miles). The province extends 1,225 km from north to south. Its width on the U.S. border is 449 km, at the widest point 793 km, and on the northern boundary 418 km.

Manitoba is comparatively level, with land elevations rising gradually south and west from sea level at Hudson Bay. Most of the province has an elevation between 150 and 300 metres. The highest point in Manitoba is Baldy Mountain, located in Duck Mountain Provincial Park, with an altitude of 831 metres. The altitude at Brandon, in southwestern Manitoba, is about 390 metres, while at Flin Flon, in the west-central part of the province, it is about 290 metres.

The agricultural land lies in a triangular-shaped block in the southern part of the province. One side of the triangle runs along the American-Manitoba border, the second along the Saskatchewan-Manitoba boundary, while the third cuts diagonally across the province from the southeast corner to a point west of Lake Winnipegosis. The bulk of Manitoba's population lives in this area.

The northern three-fifths of Manitoba lies within an entirely different geological formation, the rocky Precambrian Shield. The terrain is very rugged, is laced with streams and rivers, has thousands of lakes, and there are large tracts of swamp. Forest, consisting mainly of spruce, covers most of this region, which is the principal source of Manitoba's mineral wealth, pulpwood, fish, and fur-bearing animals. Beyond this, roughly north of a line drawn west from Churchill, is the Arctic tundra. The tundra can support only low-growing vegetation because only the top few feet of the soil thaw out in spring. Under this active layer lies ground that is always frozen, called permafrost. A few species of animals, such as Arctic fox, wolves, caribou, lemmings, and polar bear, live in the region. Substantial numbers of birds migrate into the tundra during the spring, but leave for the south with the coming of fall.

All of Manitoba's waters flow to Hudson Bay. The principal rivers are the Nelson, Churchill, and Hayes Rivers, and their tributaries, which flow directly into Hudson Bay; the Saskatchewan, Red, and Winnipeg Rivers, which drain into Lake Winnipeg; and the Assiniboine, a tributary of the Red, which runs most of its length through the agricultural belt of Manitoba.

Before southern Manitoba was settled for agricultural purposes, much of it was part of a huge swamp that covered an area extending south from Lakes Winnipeg and Manitoba to the United States. This was caused by flooding on the Red, Assiniboine, Pembina, and other rivers that wound through the flat plain, augmented by runoff from snow and from summer rains. The water was retained by heavy grass cover and flowed back into the rivers very slowly.

An extensive system of drainage ditches had to be constructed throughout south-central Manitoba to make the region suitable for cultivation. This system is now maintained by municipalities and the province, and additions and improvements are constantly being made.

To protect Winnipeg and other centres from floods, a system of dikes and channels has been constructed. The largest channel is the Red River Floodway, which when opened diverts a large part of the water of the Red River around Winnipeg. This 48-kilometre channel, 305 metres wide, was started in 1962 and completed in 1968, at a cost of $63,000,000. The amount of earth removed was about 30 per cent greater than earth excavated in building the St. Lawrence Seaway Canadian section.

On the Assiniboine River the Portage Diversion was constructed just west of Portage la Prairie to reduce the threat of flooding to that city and Winnipeg, as well as to farmland between the two cities. The diversion is a 29-kilometre channel to Lake Manitoba that carries floodwater diverted from behind a 425-metre-long earth fill dam on the river. A control structure in the dam determines the amount of water that continues down the river, while a control structure on the channel determines the amount of water to be diverted to Lake Manitoba.

On the upper reaches of the Assiniboine a huge reservoir was constructed near Shellmouth to control flood waters along the entire length of the river. The Shellmouth Dam is made of earth. It is 21 metres high and 1,280 metres long, stretching across the Assiniboine River valley. The dam created the Lake of the Prairies, which is more than 48 kilometres long and extends back into Saskatchewan.

Both these projects have been in use since 1970.

CLIMATE

Manitoba's climate is characterized by warm, sunny summers and cold, but bright, winter days. Afternoon temperatures in July and August average 25 degrees Celsius, but mid-winter daytime readings almost always remain well below freezing. Wide variations

from the average values (for Winnipeg) given in the table below are quite common in all seasons.

Mean (average) January temperatures in Brandon are minus 19.7 degrees and the monthly means for July is 18.8 degrees. At The Pas, January averages −22.7 and July 17.7 and at Thompson the averages are −26.6 and 15.6. At Churchill on the Hudson Bay coast the mean for January is −27.5 and for July 11.8.

A high percentage of sunny days is a distinguishing feature of the climate of the Canadian prairies, including southern Manitoba.

More than half of the annual precipitation falls in the summer months, most frequently in the form of brief but sometimes heavy showers. Most of southern Manitoba receives 110 to 140 centimetres of snow annually (Winnipeg 126 cm, Brandon 117 cm). The heaviest snowfalls, close to 160 cm, are recorded in northeastern Manitoba east of a line from Bissett to Churchill, and in the Duck and Riding Mountains.

CLIMATIC VALUES FOR WINNIPEG

	Average Temperature (Celsius)		Total Precipitation Rain (mm)		Snow (cm)		Bright Sunshine (Hours)	
Month	**1985**	**Normal**	**1985**	**Normal**	**1985**	**Normal**	**1985**	**Normal**
Jan.	−17.8	−19.3	T	0.2	14.2	23.7	121.8	121.2
Feb.	−16.9	−15.6		0.7	16.6	18.9	144.7	144.2
Mar.	−2.8	−8.2	4.0	3.3	2.8	21.1	206.9	176.2
Apr.	6.3	3.4	7.4	27.1	8.8	11.3	258.5	219.8
May	13.1	11.3	64.0	65.2		2.5	280.2	265.6
June	14.0	16.8	67.4	80.1		T	228.8	276.1
July	18.8	19.6	34.0	75.4		0	357.1	315.6
Aug.	16.3	18.3	218.0	75.2		0	193.3	283.3
Sept.	10.0	12.4	28.5	53.0	T	0.2	158.6	184.6
Oct.	5.1	6.1	12.5	25.9	14.2	5.2	168.1	151.5
Nov.	−11.9	−4.5	6.0	5.5	44.5	21.9	113.3	90.7
Dec.	−17.7	−14.0	T	0.9	15.9	20.7	108.4	92.6
MEAN	1.4	2.2						
Annual Totals			441.8	411.0	117.0	125.5	2339.7	2321.4

THE ECONOMY

The earliest economic activity in Manitoba was the exchange of furs by Indians for French and British trade goods. Furs were exported to Europe by the companies that traded into what is now Western Canada.

Agriculture on a commercial scale began to develop as the Red River Settlement grew, but at first agricultural trade was confined to exchanges with other Prairie settlements or with Hudson's Bay Company posts. Wheat was first exported from the West in 1876 (a Manitoba shipment sent to Toronto) and quickly became a major export crop.

The influx of settlers into Manitoba after 1870 created a demand for lumber for farmsteads, barns, and commercial buildings, which started Manitoba's forest industry. After 1886, timber was shipped to Eastern Canada on the Canadian Pacific Railway.

The first mining activity occurred in the Flin Flon area, where copper, zinc, and other minerals were discovered in 1915. All the province's mines are in the Precambrian Shield,

which arches across Manitoba from the southeast to the northwest. The first major oil discoveries in the province were made in the 1950s, in the southwest near Virden.

Railways and Winnipeg's strategic location established the city as a major distributing centre and later as a manufacturing centre. Manitoba has developed a diversified economy, with manufacturing being the largest industry in the goods-producing sector in employment, wages paid, and value of production.

Manitoba's estimated gross provincial product in 1985 was $18.1 billion. Total public and private investment was $4 billion and per capita personal disposable income was an estimated $12,213.

GROSS PRODUCTION: GOODS-PRODUCING INDUSTRIES

Year	Manufacturing (1)	Construction (1)	Agriculture (2)	Mining (3)
		(millions of dollars)		
1973	1,840	889	1,290	419
1974	2,280	982	1,054	486
1975	2,581	1,012	1,101	534
1976	2,766	1,233	1,083	515
1977	2,817	1,386	1,209	569
1978	3,278	1,502	1,517	468
1979	3,915	1,470	1,580	653
1980	4,357	1,398	1,669	821
1981	4,966	1,539	1,991	658
1982	4,819	1,422	2,015	551
1983	4,802	1,645	1,994	694
1984	5,199	1,796	2,208	817
1985	5,508P	1,982P	2,379P	833P

P Preliminary

Sources:

(1) Statistics Canada Catalogues 31-001 (Manufacturing) and 62-007 (Construction).
(2) Manitoba Agriculture
(3) Manitoba Energy and Mines

EMPLOYMENT BY INDUSTRY, MANITOBA

(Thousands — Annual Averages)

Industry	1984	1985
Agriculture	42	47
Other Primary Industries	9	8
Manufacturing	58	58
Construction	22	22
Trade	83	87
Transportation and Utilities	50	47
Finance	23	26
Service	146	148
Public Administration	39	38
Total Employment	**472**	**481**

Source: *Statistics Canada, Catalogue 71-001 (Labour Force).*

AGRICULTURE

From the earliest days of settlement, agriculture has been one of Manitoba's most important industries and sources of income and employment. It was a major occupation of the Indians before the coming of the French and British, and the early fur trading posts in what is now Manitoba were among the first agricultural centres on the Prairies. The first major farming operations were established in 1812 by the Selkirk settlers from Scotland, and agriculture became firmly established as the Red River Settlement developed. Most of the pioneers who flocked to Manitoba between 1870 and 1900 were farmers or became farmers, and by 1900 they had developed the bulk of the prime agricultural land in the province.

Wheat continues to be the most important Manitoba crop, accounting for more than one-third of crop production value, followed by barley and rapeseed (canola). Other major crops are flaxseed, oats, and rye. Despite the dominance of grain production, Manitoba agriculture is more diversified than the other Prairie provinces, with special crops, horticulture, and livestock making a significant contribution to total provincial agriculture income. Manitoba dominates Canadian production of flaxseed, sunflower seeds, buckwheat, and field peas.

The major grain and oilseed crops are grown throughout the province, while special crops, such as the pulses and horticulture crops, are concentrated in the area bounded by the Red River Valley, Brandon, Portage la Prairie, and the American border. Livestock production in Manitoba is more prevalent in the southwest, northwest, and Interlake regions and most of the province's dairy industry is located south of Winnipeg.

In 1985, the estimated total value of agricultural production in Manitoba was $2.4 billion. Crop production was valued at $1.7 billion; livestock, $670 million; honey, $9.7 million; miscellaneous, $11.8 million.

The 1981 census reported 29,442 farms in Manitoba, with an average area of 639 acres per farm. Total farmed area in 1981 was 13.6 million acres. There were an estimated 28,800 farms in 1985.

In 1985, there were 319 licensed grain elevators in the province, with a total capacity of 1,455,440 tonnes. Of these, 305 were primary elevators, with a capacity of 1,124,520 tonnes; 13 were process elevators, with a capacity of 190,900 tonnes; and there was one terminal elevator, with a capacity of 140,020 tonnes.

The 200-acre Union Stockyards in the Winnipeg suburb of St. Boniface are the largest in Canada and represent an investment of more than $5 million in auction rings, scales, test chutes, and other facilities necessary for a modern livestock market. The yard conducts daily auctions, handles railway livestock loads, is a connecting point for rail and truck shipments, and has a storage capacity of 25,000 head of all classes of livestock.

There are three Agriculture Canada research stations in Manitoba.

The Brandon Research Station, established in 1886 as one of the original five experimental farms, covers 1,764 acres and has 15 scientists and 71 full-time employees. Current research comprises two main disciplines: plant science and animal science. In plant science, research covers breeding, physiology, and management of cereal, oilseed, pulse, and forage crops. Other studies examine soil fertility, plant nutrition, soil management and conservation, agronomy, and weed control. Programs in animal science focus on breeding and environmental physiology in beef cattle, as well as nutrition, physiology, genetics, and management in swine. Meats research concerns carcass evaluation, product quality, consumer acceptance, and processing capabilities.

The research station at Morden, established in 1915, comprises 627 acres and a staff of 17 scientists. Research with crops, including linseed flax, grain corn, sunflowers, field

peas, and buckwheat, is aimed at developing new varieties and management practices that will increase yield, advance maturity, and improve both disease resistance and quality of the crops. Exotic crops from other parts of the world and native species are under study, with the objective of identifying new crops that could contribute to Canadian agriculture. In horticulture, research is devoted to improving ornamentals, potatoes, vegetables, and small fruits for prairie conditions.

The third station is located on the campus of the University of Manitoba, in Winnipeg, with an experimental plot of 260 acres at Glenlea, 22 kilometres south of campus. The Winnipeg station was founded in 1925 and employs 39 scientists with a supporting staff of 60. The major fields of research are cereal breeding and genetics, control of cereal diseases by plant resistance, protection of grain and cereal products from pests during storage, and control of insects of field crops by the integration of biological, cultural and chemical means. The station also provides a quality screening service for Canadian cereal breeding programs.

CONSTRUCTION

Statistics Canada reports that $696.4 million worth of building permits were issued in Manitoba in 1985, compared with $528.5 million in 1984. The value of residential permits was $424.2 million ($320.4 million in 1984); industrial permits, $49 million ($19.1 million in 1984); commercial permits, $122.6 million ($126.3 million in 1984); institutional-government permits, $100.5 million ($62.8 million in 1984). There were 6,557 housing starts in 1985, compared with 5,308 in 1984. These comprised 3,995 single-family units, 56 duplex units, 107 row units, and 2,399 apartment units.

Building permits in Winnipeg were valued at $526.4 million, compared with $423.7 million in 1984. Residential permits were valued at $310 million; industrial permits, $38 million; commercial permits, $93.3 million; institutional-government permits, $85 million. There were 5,069 housing starts in Winnipeg in 1985, compared with 4,111 in 1984.

HYDRO

Manitoba Hydro, a Crown corporation, is responsible for the generation, transmission, distribution, and sale of electricity in all of Manitoba, except for the inner section of the city of Winnipeg which is served by the city-owned utility Winnipeg Hydro. The two utilities are electrically interconnected and operate as an integrated system.

Formed in 1949 as the provincial authority to co-ordinate future power developments, Manitoba Hydro was initially administered by the Department of Mines and Natural Resources. It became a separate entity in 1951 with the appointment of the first Manitoba Hydro-Electric Board. In April, 1961, it was amalgamated with the Manitoba Power Commission, the provincial electrical distribution utility.

Manitoba Hydro serves 340,200 customers, who consumed 11.1 billion kilowatt hours of electricity in 1985. Winnipeg Hydro serves 89,500 customers, whose 1985 consumption totalled approximately 2.1 billion kilowatt hours. More than 98 per cent of the electricity generated in Manitoba is produced from water power.

Manitoba Hydro generates electric power from 11 hydraulic stations, two thermal stations, and 17 diesel stations. Four of the hydraulic stations are on the Winnipeg River about 100 km northeast of Winnipeg. The others are north of the 53rd parallel: one is at Grand Rapids on the Saskatchewan River, 417 km northwest of Winnipeg; four are on the Nelson River at sites known as Jenpeg, Kelsey, Kettle, and Long Spruce, ranging in distance from 519 to 745 km northeast of Winnipeg; and there are two small plants on the Laurie River 745 km northwest of Winnipeg. The two thermal plants, used mainly to meet peak demands, are located in Brandon and Selkirk. The 17 diesel stations are in isolated communities in northern Manitoba.

The installed generating capacity for all Manitoba Hydro's stations is 3.9 million kilowatts. Projected development of the Nelson system will yield an additional 6.1 million kilowatts.

Formed in 1906, Winnipeg Hydro operates two hydro-electric generating stations on the Winnipeg River, with a capacity of 140,600 kW, and a thermal station in Winnipeg with 50,000 kW capacity. A central steam heating plant supplying heat to part of downtown Winnipeg is operated in conjunction with the thermal plant. About 55 per cent of Winnipeg Hydro's energy requirements are purchased from Manitoba Hydro.

There are about 76,000 km of transmission and distribution lines in Manitoba Hydro's electrical network, including interconnections with Saskatchewan, Ontario, and the United States, and 1,875 km in the Winnipeg Hydro network.

NATURAL GAS

The natural gas used in Manitoba comes from Alberta and satisfies one-third of Manitoba's total energy requirements. The gas is distributed within the province by two companies: Greater Winnipeg Gas Company, serving Winnipeg and environs; and Inter-City Gas Limited, serving communities along the Trans-Canada Highway, Dauphin and district, the Parklands, and southern communities such as Winkler and Emerson.

In 1985 natural gas sales were about 1.85 billion cubic metres, of which about 696 million were for residential use, 694 million for commercial use and 463 million for industrial requirements.

MANUFACTURING

Manufacturing is an important sector of the Manitoba economy in its contribution to provincial production and in number of jobs generated. About 1,605 establishments are engaged in manufacturing, accounting for about 12 per cent of total provincial employment. In 1985 they employed 58,000 people and produced goods valued at approximately $5.51 billion.

Although the Selkirk settlers in the early 19th century supplied some of their needs through fledgling "factories," the first large-scale manufacturing operations in Manitoba developed about 1900, as meat packing plants, clothing factories, lumber mills, metal-working shops, and machine shops were built — chiefly in Winnipeg — to supply demand from all over Western Canada. Today manufacturing in Manitoba is widely diversified. Most major industries are represented in production, and there are strong supply and processing links with agriculture in the province and with the growing, resource-based economies of the other Western provinces. The most important industries are food and beverages, machinery, primary metal and metal fabricating, transportation equipment, and clothing, which together produce about two-thirds of all manufacturing output and employment in Manitoba. Winnipeg establishments produce about 73 per cent of provincial manufacturing shipments and Brandon establishments four per cent.

The manufacturing sector in Manitoba is geared to both domestic and foreign markets. An estimated 48 per cent of output is exported from the province to other parts of Canada and another 10 per cent is sent to markets outside Canada. Major export products include agricultural equipment, aircraft engineering services and parts, transportation equipment, and clothing.

ESTIMATED VALUE OF MANITOBA FACTORY (MANUFACTURING) SHIPMENTS
(Millions of Dollars)

Industry	1981	1982	1983	1984	1985
Food and Beverage	1,303	1,356	1,405	1,489	1,641
Clothing and Textiles	332	323	331	346	386
Wood, Furniture, and Fixtures	230	211	246	241	273
Printing and Publishing	232	247	268	311	322
Primary Metals	229	165	170	212	219
Metals Fabricating	398	328	304	314	311
Machinery	482	444	351	444	325
Transportation Equipment	400	346	356	368	427
Paper and Allied Products	268	261	271	305	333
Non-Metallic Minerals	138	111	129	159	182
Chemical and Chemical Products	112	122	136	150	171
TOTAL ALL INDUSTRIES	4,966	4,819	4,802	5,199	5,508

Source: *Statistics Canada, Catalogue 31-001 (Manufacturing).*

TRANSPORTATION AND COMMUNICATIONS

Travel overland on foot and by canoe on the water were the first methods of transportation for both the original Indian inhabitants of Manitoba and the early fur traders. As the use of the horse (introduced into North America by the Spanish) spread among the plains Indians, they became much more mobile and developed a more nomadic way of life.

In the early 19th century, the larger York boats replaced canoes in the fur trade in Rupert's Land. With several times the cargo capacity of a canoe, the York boat was ideal for freighting furs to the Hudson Bay coast and for carrying supplies and machinery back to the interior fur posts and the Red River Settlement. Steamers plied the Red and Assiniboine Rivers for a number of years after 1859, venturing as far as Fort Ellice (St. Lazare) on the Assiniboine and travelling regularly on the Red River between Winnipeg and settlements in Minnesota. The steamers were driven from the rivers by the railway, but continued to operate for many years on Lake Winnipeg.

Early settlers in Manitoba used Red River carts and stagecoaches for general land transport. Some of the early "roads" used by those vehicles are still evident in the main streets of the city of Winnipeg, which wander north and west to the sites of former fur posts.

The first constructed roads were scratched out from the prairie and bush by horse-drawn scrapers, along grid lines, to facilitate the transport of grain and other agricultural produce. A network of rural roads was built up and gradually improved, and many present-day Manitoba trunk highways follow the roads developed by the early settlers. By the mid-1920s, roads were being pushed into the mineral-rich north.

When Manitoba was formed in 1870, all roads came under the jurisdiction of the public works department. Municipal roads were turned over to local governments in 1880. In 1910 a provincial highway commissioner was appointed, and in 1912 the legislature passed the Good Roads Act, which allowed municipalities to issue debentures for road construction. This act was the forerunner of legislation that created the provincial highway system.

The increasing use of motor vehicles made hard-surface paving of highways necessary, although it was in the 1950s before paving was carried out on a large scale. By 1965 most trunk highways and some stretches of provincial road had been paved.

Manitoba's first railway was the St. Boniface-Emerson section of the St. Paul, Minnesota and Manitoba Railway, completed in 1878. The first train on this line, which is now part of the Canadian Pacific Railway, arrived in St. Boniface from St. Paul December 7, 1878. From 1880 to 1882, construction of the present CPR transcontinental line (completed in 1885) took place in Manitoba and service in the province began in 1882. The first transcontinental train on the new railway arrived in Winnipeg from Montreal July 1, 1886.

The present Canadian National transcontinental railway was formed out of several lines built to exploit the tide of settlement into Western Canada between 1896 and 1914. By 1914 nearly all of the present-day railways in southern Manitoba were in operation, but lines were built to northern mining communities as recently as the 1950s.

Until the mid-1920s aircraft in Manitoba were used almost exclusively by stunt flyers. Starting in 1925, organized air service developed in western Canada, including Manitoba, with a strong emphasis on northern bush flying. By 1927 there were air bases at a number of communities, including Winnipeg, Lac du Bonnet, and The Pas. A prairie air mail service, using Winnipeg as a terminus, was established in March, 1930, but it was discontinued in 1932.

Trans-Canada Air Lines, now Air Canada, was organized in 1937 with Winnipeg as its headquarters. The first air express service in Canada was started out of Winnipeg in September, 1938 and the first regular air mail service in October, 1938. It was extended to all parts of Canada within a few months.

AIR SERVICES

Air Canada operates frequent passenger and cargo flights daily from Winnipeg to domestic points east and west, with connections to destinations in Europe, Asia, the Caribbean, and the United States. The airline also has a nonstop flight to Chicago, a same-plane, one-stop flight to Los Angeles, and from December to April a flight to Montego Bay, Jamaica.

Canadian Pacific Air Lines operates daily passenger and cargo services from Winnipeg to Toronto and Vancouver, with easy connections to domestic flights to Montreal, the Atlantic provinces, Victoria, the B.C. interior, and the Yukon, and to trans-Atlantic and trans-Pacific flights.

Pacific Western Airlines operates services to northern Manitoba, to the other western provinces, Toronto, and Thunder Bay. From Winnipeg the airline serves the northern Manitoba towns of The Pas, Flin Flon, Lynn Lake, Thompson, Gillam and Churchill. Pacific Western has daily flights from Winnipeg to Regina, Saskatoon, Edmonton and Calgary, which provide connections north and to British Columbia. There is six-day-a-week nonstop service from Winnipeg to Calgary and to Toronto, as well as six-day service linking Brandon with Calgary and several cities in British Columbia (including Vancouver and Victoria) and with Thunder Bay and Toronto.

Nordair operates daily flights from Winnipeg to Dryden, Thunder Bay, Sault Ste. Marie, Toronto, and Montreal. Air Ontario serves Thunder Bay daily and Sudbury from Monday to Friday.

Perimeter Airlines, of Winnipeg, operates a daily flight to Red Lake, Ontario and Monday to Friday service to Dauphin. Its northern Manitoba service includes daily flights to Norway House, Island Lake, and St. Theresa Point and flights of varying frequency

to Berens River, Cross Lake, Gods Lake Narrows, Gods River, Little Grand Rapids, Oxford House, Poplar River, and Red Sucker Lake.

Air Manitoba, of Winnipeg, flies daily to Gods Lake Narrows, Island Lake, and St. Theresa Point, and also serves Gods River, Oxford House, Red Sucker Lake, and Sandy Bay, Ontario. Northwinds, of Thompson, operates Monday to Friday flights between Cross Lake and Norway House. Northway Aviation operates from Winnipeg to Berens River, Bloodvein, Poplar River, and Little Grand Rapids. Silver Pine Air Service has flights from Pine Falls to Pauingassi and Little Grand Rapids. Bearskin Air operates six days a week from Winnipeg to Kenora and Sioux Lookout, Ontario, and Norontair flies Winnipeg-Minaki, Ontario six days a week.

Calm Air, of Thompson, serves a number of northern Manitoba communities and also operates from Churchill and Thompson into the Northwest Territories. Northwest Territorial Airways has three-day-a-week service linking Winnipeg with Yellowknife and Rankin Inlet.

Wardair operates charter flights from Winnipeg to Europe from spring to fall, to Hawaii from December to March, and to Vancouver from May to October.

Two American airlines serve Manitoba. Frontier Airlines has daily flights from Winnipeg to several midwestern American cities. Northwest Orient operates daily flights to the midwest and Florida, connecting at Minneapolis-St. Paul with 55 U.S. destinations.

There are 108 licensed commercial air carriers in Manitoba, working from more than 50 bases in the province. They operate a variety of services, ranging from flight training and crop dusting to regular and chartered passenger and freight service, to dozens of Manitoba points.

Manitoba government air and radio services, established in 1932, operates from three main bases in Winnipeg, Lac du Bonnet, and Thompson, with a radio service shop in Dauphin and a seasonal flight operation base in The Pas.

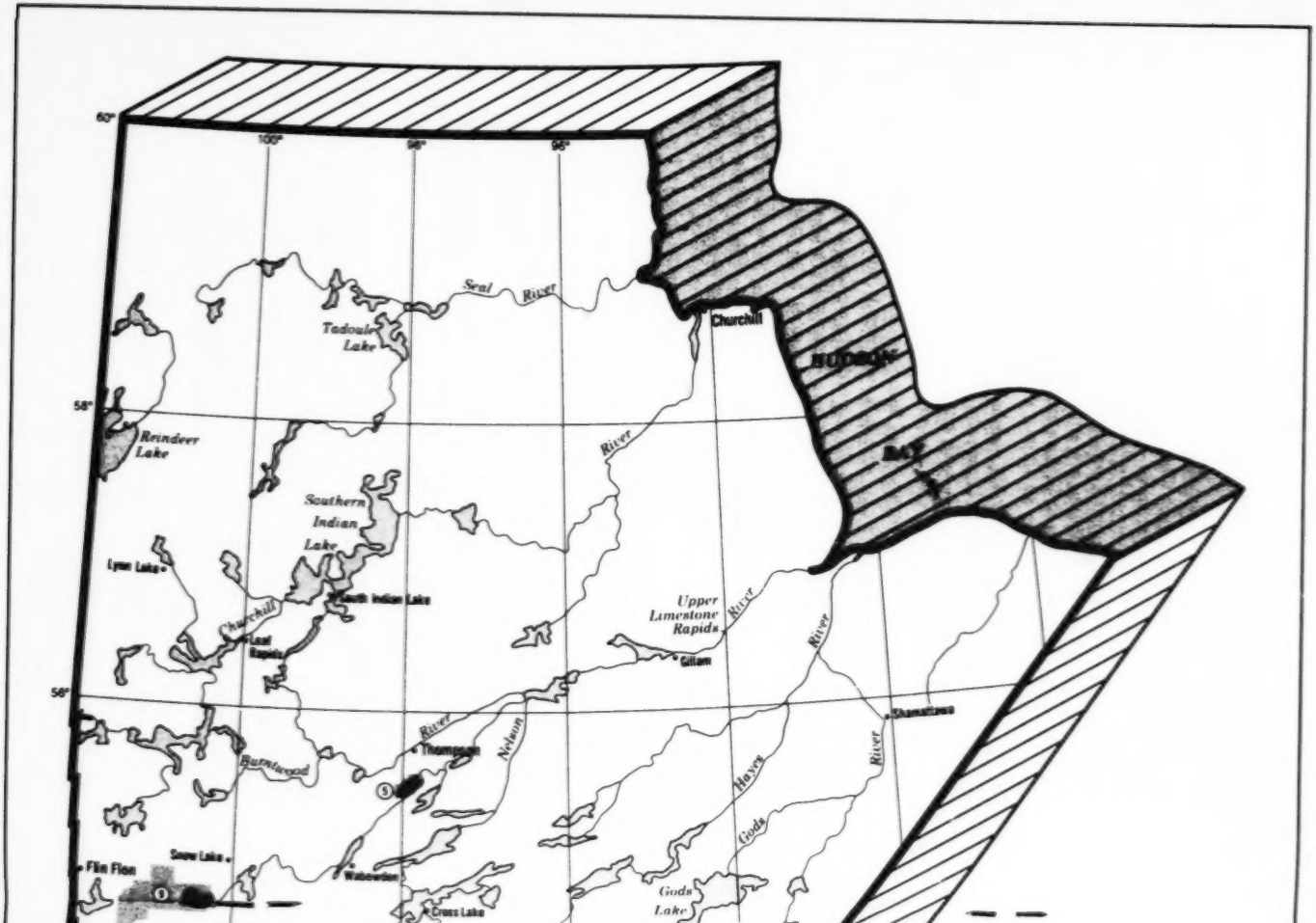
The service provides aerial support for forest fire suppression, an air ambulance service, the Northern Patient Air Transportation program, and Emergency Measures Organization. It transports government staff and freight and operates air services for surveys and patrols. Twelve aircraft make up the division's fleet.

The province operates and maintains 28 airports-aerodromes in northern Manitoba communities; 19 of these airstrips are licensed to airport status. Most of the airports can accommodate up to and including Class 2 air services, and in 1984-85 they handled 59,000 aircraft movements, 137,000 passengers, and 9,400 tonnes of freight.

HIGHWAYS AND ROADS

Among major east-west highways in Manitoba are the 500 km provincial portion of the Trans-Canada Highway across the province, completed in 1962, and the more northerly Yellowhead Route, which proceeds in a west-northwesterly direction from near Portage la Prairie and offers an alternative route from Manitoba to the west coast. North-south highways include the 800 km route from the United States border at Turtle Mountain to Flin Flon and the highway linking Winnipeg and Thompson, which passes through the Interlake region.

In addition to the regular highway network, Manitoba also operates a 1,250 km system of "winter roads" to transport supplies to isolated northern communities. First developed in the late 1920s to supply northern mining camps, the winter road network has evolved from trails used by sled trains and small tractors to roads usable by large trucks. Winding through bush and muskeg, around large rocks, and across rivers and lakes, the roads are constructed to take advantage of snow and frost cover, and even heavily laden


60°
100°
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92°
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Seal River
Tadoule Lake
Churchill
Reindeer Lake
Southern Indian Lake
Lynn Lake
South Indian Lake
Churchill
Leaf Rapids
Upper Limestone Rapids
River
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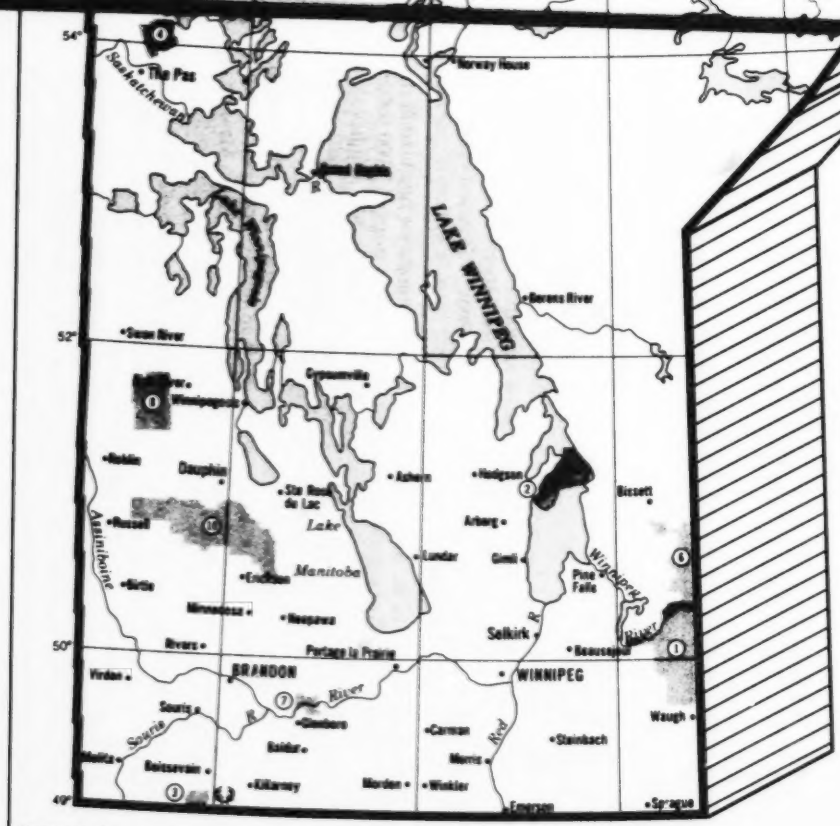

MANITOBA

MAJOR PARKS (indicated by number)

1. Whiteshell Provincial Park
2. Hecla Provincial Park
3. Turtle Mountain Provincial Park
4. Clearwater Lake Provincial Park
5. Paint Lake Provincial Recreation Park
6. Nopiming Provincial Park
7. Spruce Woods Provincial Park
8. Duck Mountain Provincial Park
9. Grass River Provincial Park
10. Riding Mountain National Park

U International Peace Garden

Cartography by
Surveys and Mapping Branch,
Province of Manitoba, 1985 ©

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vehicles can safely cross frozen lakes once the roads are built. Winter roads normally are usable in January, February and March, and occasionally for longer periods in very cold winters. They were constructed privately at first, under provincial land use permits, but since 1971 the province has built and maintained the system.

As of January 1, 1985 there were 6,631 km of provincial trunk highways in Manitoba (of which 635 were four-lane) and 12,550 km of provincial roads. In the trunk highway system, 374 km were concrete, 4,610 km bituminous surfacing, 1,634 km asphalt treatment, and 14 km gravel.

The provincial roads are a secondary road system, which is maintained by the province. The bulk of these roads are gravel surface.

All trunk highways and some provincial roads are limited-access roads. The province maintains some 3,000 bridges on the two systems.

The maximum gross vehicle weight for trucks on many of Manitoba's main trunk highways is 56,500 kilograms.

MOTOR VEHICLES

The number of passenger cars licensed in Manitoba as of February 28, 1986 was 509,297. There were 781 taxis and liveries, 768 delivery cars, 67,622 farm trucks, 25,170 commercial and public service trucks, 114,613 other trucks, 163 public service buses, 18,481 motorcycles and mopeds, 932 commercial and PSV trailers, 2,057 semi-trailers, 87,094 other trailers, 206 licensed tractors, 118 large snowmobiles, and 37,543 registered snowmobiles (February 29, 1984).

In December, 1985 there were 609,494 actively licensed drivers in Manitoba.

RAILWAYS

Railways, which haul a large proportion of freight moving to, from, and within Manitoba, have played a vital role in the province's history and economic development for more than 100 years. The availability of railway service has been a key factor in the development, prosperity, and survival of numerous Manitoba and Prairie communities.

Canadian National has some 4,100 kilometres of main track in Manitoba. A total of 820 kilometres of main track from The Pas to Churchill, formerly known as the Hudson Bay Railway and operated by CN for the federal government, was absorbed into the CN system on January 1, 1958.

CN's Symington Yard in St. Boniface is one of the most modern of its kind in the world. It might be described as a pushbutton freight yard, where as many as 7,000 freight cars can be handled in a day. Radio, telephone, teletype, walkie-talkie, loudspeaker paging, and computers are used to speed and coordinate operations. The yard covers 682 acres, has 225 kilometres of track and some 32 kilometres of roadway.

The railway's Transcona Shops in Winnipeg are CN's western Canada base for all major repairs to locomotives and rolling stock. In relation to investment, number of employees, and production, this shops complex is the largest industrial plant in Manitoba. In 1985, the shops repaired some 2,008 freight cars, 34 passenger cars, and 591 diesel units.

CN's materials distribution centre in Transcona stocks and distributes all the materials required in CN operations from Thunder Bay to Vancouver. It stores about 16,000 items and maintains an inventory valued at about $18 million.

CN's national training centre for locomotive engineers, dispatchers, transportation supervisors, and master mechanics is located at Gimli, Manitoba, in the provincially owned Gimli Industrial Park. CN employees from all parts of Canada are assigned to this centre as trainees.

The Canadian Pacific (CP Rail) network in Manitoba comprises 1,000 km of mainline track, about 1,050 km of branch lines, and 830 km of sidings. CP Rail has about 4,500 employees in Manitoba.

Winnipeg is the headquarters for CP Rail's Prairie region, which comprises the system from the Lakehead to western Saskatchewan. The city is also the site of massive marshalling yards, an intermodal (container and piggyback) terminal, and equipment repair facilities. The 191-acre Winnipeg terminal yards comprise more than 120 km of track and handled 738,644 freight cars in 1984. At Brandon there are marshalling yards and railway offices responsible for CP Rail track in Manitoba west of Winnipeg and some in eastern Saskatchewan.

CP Rail operates fast freight trains between Winnipeg and principal markets and supply areas from coast to coast. There are daily piggyback connections between Winnipeg and trailer-on-flatcar (piggyback) terminals across Canada for the movement of motor common carrier and private industry highway trailers. The railway also operates intermodal services to industry with its own container fleet.

Import and export traffic moves between CP Rail's Winnipeg container terminal and major coastal ports by rail. Pick-up and delivery within Winnipeg and line-haul services to other Manitoba points are handled by truck. The railway handles both dry and refrigerated container traffic.

Wheat and other grains together are the most significant CP Rail freight commodity originating in or shipped through Manitoba, with about 32 per cent of 1985 traffic consisting of grain.

Winnipeg's Weston shops, one of three main heavy facilities in the CP Rail system, employ about 1,100 people. The shops repair and rebuild locomotives and railway cars. Also located in the Weston area is a diesel shop for light or "running" repairs on a local fleet of 360 locomotives and another 100 units used on long-distance runs. The shops also supply CP Rail with freight car wheelsets and "frogs" (specially hardened rail parts used in switches).

VIA Rail Canada operates transcontinental passenger services linking Manitoba with Vancouver, Toronto, and Montreal, with connecting trains in Edmonton to Prince Rupert, B.C. VIA also operates trains between Winnipeg and points in northern and northwestern Ontario. Within Manitoba, VIA operates a tri-weekly Winnipeg-Thompson-Churchill service. CN operates tri-weekly The Pas-Lynn Lake and Wabowden-Churchill services. Winnipeg's Union Station is the focal point for VIA Rail services in Manitoba.

Two other railways operate in Manitoba.

The Greater Winnipeg Water District Railway, part of the city of Winnipeg's water-works division, operates a 156 km line from St. Boniface to Waugh, on Shoal Lake near the Ontario boundary. The railway, completed in 1914, was built to serve the aqueduct that carries Winnipeg's fresh water supplies to the city from Shoal Lake. Besides transporting freight and maintenance equipment for the aqueduct, the GWWDR carries commercial gravel mined at Ross, about 50 km east of Winnipeg.

Burlington Northern (Manitoba) Ltd., a subsidiary of the American railway Burlington Northern of St. Paul, Minnesota, operates freight services between Winnipeg and the U.S. border, connecting with BN's American lines. Although the railway owns rail yards and facilities in Winnipeg, its trains travel over CN tracks to the border.

PORT OF CHURCHILL

Although Manitoba is a central plains province, it also has a maritime aspect — the port of Churchill. Located at the mouth of the Churchill River on Hudson Bay, Churchill

offers a short route to European markets, since it is only 4,725 kilometres from Liverpool, England.

The mouth of the river was found in 1619 by a Danish expedition led by Jens Munk. The expedition was forced to winter at Churchill, and 62 of the 65 members died of scurvy or exposure. Munk and the other two survivors managed to sail their ship back to Europe in 1620.

In 1717 the Hudson's Bay Company built its first fort on the site. A massive stone fort, Fort Prince of Wales, was begun in 1731, took 40 years to complete, and still stands on a point opposite the modern town of Churchill.

After a number of unsuccessful attempts and considerable delay, construction of a railway to Hudson Bay began in 1910 at The Pas, but was halted in 1918 because of wartime pressures. The original terminus of the Hudson Bay Railway had been fixed at Port Nelson, at the mouth of the Nelson River, but when construction resumed in 1927 this was changed to Churchill, which has a natural harbor. Commercial traffic on the 820 km railway began in 1931, when major port facilities were completed at Churchill.

The first marine shipment out of the port was in 1929, when one ton of bagged grain was loaded on board the Hudson's Bay Company ship "Nascopie" for shipment to Europe. The port now handles about 500,000 tonnes of grain annually, as well as general bulk cargo, fuel oil, and several tonnes of pellets made from refuse grain. About 2,300 tonnes of cargo destined for Keewatin territorial communities by barge are handled annually.

The shipping season generally is limited to the period during which marine shipping companies will handle conventional-type ships (July 20 to October 31). Shipping operations are distributed fairly evenly throughout the season.

Churchill also has a modern airport, and the town is the base of a supply service for communities in the Arctic. It is also a major centre for research, testing, health referral, and education.

TELEPHONES AND TELECOMMUNICATIONS

The Manitoba Telephone System, owned by the provincial government and operated by a board of commissioners, operates a wide range of sophisticated telecommunications services throughout the province. Responsibilities include local and long distance telephone service, broadcast and cable television distribution facilities, and computer communications. MTS is part of the 10-member Telecom Canada system.

The first telephones in Manitoba were installed by Horace McDougall in 1877, in Winnipeg, and simply linked his home and business. In 1881, Bell established a system in Winnipeg, with 26 subscribers. Systems were installed in Portage la Prairie and Brandon in 1882. A number of other municipalities and private groups set up small, independent systems in Manitoba over the next 25 years.

In 1908 the Bell system was purchased by Manitoba Government Telephones, which became a Crown corporation in 1933 and the Manitoba Telephone System in 1940.

The first automatic exchange in Manitoba was installed in Brandon in 1917. The completion of an automatic dial system in Winnipeg in 1926 made the city the largest in North America to have this type of service.

As of November, 1985 there were about 497,000 main telephones in Manitoba. Winnipeg is served by 308,000 main phones and some 189,000 serve the rest of the province. Calling has increased to more than 1.6 billion local calls and 78.4 million long distance calls a year.

Some 99.6 per cent of Manitobans are now served by direct distance dialing. Direct dialing overseas (DDO) and Zero Plus (0 +) are available to about 75 per cent of MTS customers. DDO allows subscribers to dial their own overseas calls to most countries, and 0 + permits customers to dial their own collect, person-to-person, credit card calls, calls billed to another number, and calls that require time and charges information.

Nearly 90 per cent of Manitoba customers are now served by Automatic Number Identification, a service which automatically records a caller's number when a long distance call is placed.

A fibre optic cable network more than 520 km long links Winnipeg and a number of southern Manitoba towns, making possible improved services such as long distance telephoning and high-speed data and television transmission.

RADIO AND TELEVISION

Radio stations in Manitoba are: Altona-Steinbach-Boissevain, CFAM-CHSM-CJRB; Brandon, CKLQ, CKX and CKX-FM; Cross Lake, CFNC and Norway House, CJNC (Native Communications, Inc.); Dauphin, CKDM; Flin Flon, CFAR; Morden, CISV; Portage la Prairie, CFRY; St. Boniface, CKSB (CBC-French language); Selkirk, CFQX-FM; The Pas, CJAR; Thompson, CHTM; Winnipeg, CFRW and CHIQ-FM, CBW and CBW-FM (CBC), CJOB and CKIS-FM, CKRC and CKWG-FM, CKY and CITI-FM, and CKJS (multilingual).

The CBC has English-language rebroadcasters at Brandon, Churchill, Cranberry Portage, Dauphin-Swan River, Easterville, Fairford, Fisher Branch, Flin Flon, Gillam, Gods Lake Narrows, Grand Rapids, Ilford, Jackhead, Leaf Rapids, Little Grand Rapids, Lynn Lake, Manigotagan, Moose Lake, Nelson House, Oxford House, Pukatawagan, Snow Lake, South Indian Lake, The Pas, Thompson, Waasagomach, and Wabowden, and satellite rebroadcasters in Brochet, Poplar River, and Shamattawa. CBC programs are also carried on a community-owned rebroadcaster in Sundance. CFNC Cross Lake and CJNC Norway House carry, as affiliates, some CBC programs, and CBC broadcasts northern Manitoba programs from Thompson.

French-language CBC (Radio-Canada) rebroadcasters are located in Brandon, Flin Flon, St. Lazare, Ste. Rose du Lac, The Pas, and Thompson.

Manitoba television stations are: Brandon, CKX-TV (with rebroadcast transmitters at Foxwarren, McCreary, and Melita); and CKYB, rebroadcasting programs of CKY Winnipeg; Thompson, CESM-TV (Cable), and CBWTT rebroadcasting programs of CBWT Winnipeg; Winnipeg, CKY-TV (CTV), CBWT (CBC), CBWFT (CBC-French language), and CKND-TV (Global).

CKY Winnipeg has other rebroadcasting stations at Dauphin (CKYD), Fisher Branch, (CKYA), Flin Flon (CKYF), Snow Lake (CKYS), The Pas (CKYP), and Thompson (CKYT). CKND has a rebroadcasting tower near Minnedosa.

CBC rebroadcasters for CBWT are at Churchill, Cross Lake, Dauphin-Swan River, Easterville, Fairford, Fisher Branch, Flin Flon, Gillam, Gods Lake Narrows, Grand Rapids, Ilford-Split Lake, Jackhead, Lac du Bonnet, Leaf Rapids, Little Grand Rapids, Lynn Lake, Mafeking, Manigotagan, Moose Lake, Nelson House, Norway House, Oxford House, Piney, Pukatawagan, Snow Lake, South Indian Lake, The Pas, Thompson, Waasagomach, and Wabowden. Satellite CBC television rebroadcasters are at Brochet, Poplar River, and Shamattawa. CBC television programs are carried on community-owned rebroadcasters in Limestone, Long Spruce, Pikwitonei, Sherridon, and Thicket Portage.

French-language television rebroadcasters for CBWFT Winnipeg are at Brandon, Flin Flon, Oak Lake, Pine Falls, St. Lazare, Ste. Rose du Lac, The Pas, and Thompson.

Forty-eight cable television systems operate in Manitoba. Most offer at least four Canadian stations, four American channels, a community programming channel and one or more electronic bulletin boards. Twenty systems obtain their American programs from the Intercity Broadband Network, which receives signals from North Dakota, while 26 rural and remote systems distribute programs received through satellite. Only two systems receive American signals off-air.

Of the 358,000 households in Manitoba, 292,000 have access to cable television and 246,000 are subscribers (208,000 in Winnipeg and 38,000 in the rest of the province). About three per cent of households taking cable also subscribe to pay or specialty TV services.

NEWSPAPERS

Manitoba has eight daily newspapers: the Winnipeg Free Press, Winnipeg Sun, Brandon Sun, Portage la Prairie Graphic, Dauphin Bulletin, Flin Flon Reminder, Roblin News, and the Swan River Report. The Thompson Citizen publishes three times a week and the Opasquia Times, in The Pas, twice a week.

There are also about 60 weekly newspapers serving farmers, rural and northern Manitoba, and the suburbs of Winnipeg, which is also a leading centre for the ethnic press. A number of trade, business, and specialized journals and newspapers are also published in Manitoba.

POST OFFICES

Canada Post Corporation manages 559 post offices and stations in Manitoba. The largest of these is the Central Post Office in Winnipeg, whose main plant processes about 400 million pieces of mail a year. The corporation also operates or hires 410 vehicles to carry mail in the province, clears more than 800 street letter boxes a day, and employs more than 2,800 people.

GOVERNMENT

HISTORY

The territory that is now called Manitoba was part of the vast Rupert's Land possessions that were under the jurisdiction of the Hudson's Bay Company until 1870. When it became clear that Canada was to purchase and annex Rupert's Land, concern arose among the inhabitants of Red River about their status and land rights, and these feelings were intensified when Canadian government surveyors arrived in Red River in the summer of 1869 to begin preparatory work for a land survey of the Northwest. A provisional government was formed under Louis Riel, which negotiated the entry of the settlement into Confederation as the province of Manitoba. Manitoba came into being July 15, 1870, upon proclamation of the Manitoba Act, and was the first province to join the original four.

For the next few months the Lieutenant-Governor, Adams Archibald, carried on government by proclamation. The first election was held December 28, 1870, after Archibald created the electoral machinery.

The Manitoba Act provided for a bicameral legislature — that is, two houses similar to the House of Commons and the Senate nationally. The two Manitoba houses were a legislative council of seven members appointed for life and an elective assembly of 24. The legislative council was abolished after six years and Manitoba has since then had only an elected legislature.

Archibald governed the province for about two years with the help of an Executive Council drawn from the elected assembly. During this period there was no Premier as we understand it today and the meetings of the Council, now also called the cabinet, were presided over by the Lieutenant-Governor. Archibald's successor, Alexander Morris, continued to preside over, or sit in on, the cabinet meetings until 1876.

There is considerable question as to who was the first Premier of Manitoba and the first cabinet selected by a Premier. Some historians assert that Alfred Boyd, who was chosen to be a member of the Executive Council by Archibald, was recognized as a first minister of the council. Other historians say Marc A. Girard, named as Premier by Morris in 1874, was the first real Premier because he was able to choose his own cabinet.

Provincial political parties as we know them today did not exist in Manitoba before the turn of the century. During the first few years after 1870 the policies adopted by the legislature were those of the Lieutenant-Governors sent from Ottawa. Subsequently, members of the legislature tended to be identified with one of the major politicians whose policies they supported, and later as supporters of the national Liberal and Conservative parties. The first Manitoba government to be elected while bearing a real provincial party label was the Conservatives in 1899. Their platform pledged economy and efficiency in government operations and an end to the public sale of liquor in Manitoba.

The Conservatives held power until 1915, when they were forced to resign over a scandal involving the construction of the Legislative Building, for which substantial overpayments had been made. They were replaced by the Liberals under T.C. Norris, who remained in office until 1922.

The Norris government retained power in the 1920 election, but widespread distaste for the party system in Manitoba in the immediate postwar period helped to reduce the Liberals to a minority position, with only 21 of the 55 seats. In the legislature there were also seven Conservatives, 12 United Farmers of Manitoba, 11 Labor members, and four Independents. The United Farmers refused to form the official Opposition, and the Labor and Independent members could not be counted on to vote in any particular pattern.

Feelings against the party system were again reflected in the 1922 election, which made the United Farmers the largest group with 28 of the 55 members. However, each United Farmer member believed himself responsible only to his own constituents; hence the United Farmers lacked a party organization and had no leader. They therefore called on John Bracken, then president of the Manitoba Agricultural College, to lead them in the legislature and become Premier.

The United Farmers decided in 1928 to get out of politics and Mr. Bracken looked to the Liberals for support. This move was formalized in 1932 and the Liberal-Progressives ran as a coalition in the 1932 election, taking 38 seats in the legislature.

In the 1936 election the Liberal-Progressives won only 23 seats and were rebuffed by the Conservatives in their attempt to expand the coalition. However, Social Credit, which had been formed the previous year, had won five seats and gave the government their support. The CCF won seven seats, Conservatives 16, Independents three and Communists one.

In 1940 the Second World War caused the provincial parties to agree to a coalition, which comprised the Liberal-Progressives, Conservatives, CCF, and Social Credit. All parties agreed not to take part in any federal political action for the duration of the war.

Stuart S. Garson replaced John Bracken as Premier in 1943 when Mr. Bracken resigned to become leader of the federal Progressive Conservative Party.

In 1945 the CCF decided to withdraw from the coalition, which won a majority in the 1945 elections. Douglas L. Campbell succeeded Mr. Garson in 1948 as coalition leader and was Premier for nearly 10 years.

The Progressive Conservatives left the coalition in 1950, convinced by Duff Roblin that they should break away and run for power on the strength of their own policies. Mr. Roblin became party leader in 1954, and in the 1958 election his party won 26 seats, coalition candidates 19 and CCF 11. The new Conservative government won 36 seats and a clear majority in 1959, and for the first time in more than 25 years Manitoba had returned to the party system.

The Conservatives won elections again in 1962 and, with a decreased majority, in 1966. In 1967 Walter Weir became Conservative leader and Premier when Mr. Roblin resigned to enter federal politics.

In June, 1969, Edward Schreyer left the House of Commons, where he had been a New Democratic Party member, to lead the party to power in a general election, winning 28 of the 57 seats. Through support of Independent members and victories in by-elections, the government was able to maintain a working majority for the next four years. The New Democrats were re-elected in 1973 with 31 seats.

In the general election of October, 1977, a Progressive Conservative government was elected under the leadership of Sterling R. Lyon, who had served in cabinets in the Roblin and Weir governments.

Edward Schreyer became Canada's 22nd Governor-General in January, 1979.

The NDP was returned to power in the general election of November, 1981. Led by Howard Pawley, attorney-general and municipal affairs minister in the Schreyer government, the NDP won 34 seats and the Progressive Conservatives 23. The Liberals failed to win a seat for the first time in their history. The Pawley government was re-elected in March, 1986, winning 30 seats to the Conservatives' 26 and the Liberals' one.

MANITOBA GOVERNMENT TODAY

Manitoba's present government is headed by Premier Howard Pawley, whose administration took office November 30, 1981. It is the province's 19th administration and Mr. Pawley is the 18th premier.

Laws are passed by a single-chamber Legislative Assembly of 57 members. The present legislature is the 33rd since Manitoba became a province.

The Lieutenant-Governor is the Queen's personal representative in Manitoba. The present Lieutenant-Governor, Her Honour Pearl McGonigal, assumed office October 23, 1981.

Manitoba has 14 seats in the federal House of Commons and six seats in the Senate.

At the local level municipalities of various kinds are responsible for government services. The province has five incorporated cities, 35 incorporated towns, 39 incorporated villages, and 105 rural municipalities, which vary widely in size. The rural municipalities range in size from four townships (a township is six miles square) to 22 townships.

The business of the municipalities is directed by locally elected councils, subject to some provincial control.

Since January, 1945, local government districts have been established in settled areas of Manitoba that are not incorporated municipalities. The 17 LGDs perform the same general functions as municipalities. They are administered by administrators, who act on the advice of elected councils but are subject to the final authority of the Minister of Municipal Affairs.

In northern Manitoba the Department of Northern Affairs has jurisdiction in those areas not incorporated or organized as local government districts. Many of the larger non-organized northern communities do have a form of elective government, known as community councils, but because of a very limited tax base most of their funds come from the provincial government.

COURTS

The Manitoba Court of Appeal, which sits in Winnipeg, is the highest court in the province. It has a Chief Justice and six other judges, appointed by the federal government. The court has appellate jurisdiction in civil and criminal cases.

The Court of Queen's Bench, Manitoba's highest trial court, has a chief justice, an associate chief justice, and a number of puisne judges, all federally appointed. The court has jurisdiction in civil matters with no set monetary limit and most indictable criminal offences. It also hears appeals on summary matters referred from Provincial Court and appeals from quasi-judicial boards. The criminal division sits permanently in Winnipeg and five other towns.

All family and child protection cases heard in Winnipeg, St. Boniface, and Selkirk come under the jurisdiction of the family division of Court of Queen's Bench. In some other parts of eastern Manitoba, Queen's Bench and provincial courts have concurrent jurisdiction in these cases. Divorce and family maintenance cases in the rest of the province are under Queen's Bench jurisdiction, but child protection is the responsibility of Provincial Court.

Queen's Bench judges act in surrogate matters, such as the probating of wills, the granting of letters of administration of estates, guardianship of children, and estates of the mentally ill. Within Queen's Bench is Small Claims Court, where claims of up to $1,000 are adjudicated, with appeals to a judge.

Provincial Court has jurisdiction in summary conviction cases under the Criminal Code and under provincial laws, and indictable offences elected to be tried by a provincial judge. It sits in 20 permanent and 49 circuit locations. Besides other family matters in many parts of Manitoba, the family division of Provincial Court acts as Youth Court in the province to hear cases under the Young Offenders Act concerning persons under 18 years of age.

TIME AND HOLIDAYS

All Manitoba is located in the Central time zone. Daylight Saving Time is in effect throughout the province from the last weekend in April to the last weekend in October. During the rest of the year the province is on Central Standard Time.

There are seven statutory holidays recognized in Manitoba — New Year's Day, Good Friday, Victoria Day, Canada Day, Labour Day, Thanksgiving Day, and Christmas Day. Individual employers may grant additional days, and collective agreements may include additional days off.

Most businesses in Manitoba are closed on Sunday. As some workers must be on the job on Sunday (for example, hospital employees, transportation workers, police, fire workers, hotel employees, and restaurant employees), employment standards legislation guarantees them weekly days of rest.

Provincial and municipal parks may be open on Sunday. In municipalities where it is permitted by bylaw, sporting events, movie theatres, theatrical performances, concerts, lectures, and museums may operate. Restaurants licensed by the Manitoba Liquor Control Commission may sell liquor with meals on Sunday.

EDUCATION

Public school education in Manitoba is administered through 47 school divisions and 13 school districts. Six of the school districts are financed mainly by sources other than provincial grants and local taxation, such as the federal government and private corporations.

Enrolment in the public schools in the 1985-86 school year was about 199,000 and about 13,200 teachers were employed in the public school system.

The expenditures of the school divisions are met from provincial grants and local levies. The province's Government Support to Education program provides a basic level of support. Any costs above those supported by grants must be raised by special levy and miscellaneous revenue. Major capital expenditures, such as additions to schools, may be fully covered under the Government Support to Education program, but such expenditures must be approved by the Public Schools Finance Board.

Elementary and secondary education in Manitoba is offered through 12 grades, and the language of instruction can be either English or French. The first nine years are devoted to a general education for all students. The three years of senior high school provide a varied curriculum, from which students may choose programs that meet their individual needs, interests, and abilities. All program patterns are designed to provide a sound general education at the secondary level and to equip students with the skills and knowledge needed for further education or for employment.

Besides the traditional academically oriented programs offered by all high schools, vocational-industrial programs are offered in 34 schools and almost every high school offers business education programs. Vocational programs are available on a regional basis throughout the province.

South Winnipeg Technical Centre, which opened in September, 1985, offers training in many technical fields to both high school students and adults. The centre is unique in its system of individualized instruction, which allows students to progress through courses at their own paces and abilities.

COMMUNITY COLLEGES

Three community colleges in Manitoba — Assiniboine in Brandon, Keewatin in The Pas and Red River in Winnipeg — offer a wide variety of educational and vocational programs to adults throughout the province. Courses of study are offered on a full-time or part-time basis both on campus and in more than 120 Manitoba communities.

The three colleges offer day programs in adult basic education, applied arts, business and administration studies, health and personal services, and industrial and technology. They also train apprentices in the designated trades and provide management development and training courses for business and industry.

Assiniboine Community College offers three two-year diploma courses and more than 20 certificate courses of one year or less. The college is also responsible for all community college agricultural training in Manitoba. Keewatin Community College offers about 20 certificate courses of one year or less and a natural resources management technology course. Red River Community College offers approximately 25 two-year post-secondary courses (most of which lead to nationally recognized diplomas), about 50 full-time certificate courses of one year or less, and teacher education courses which are conducted in co-operation with the University of Manitoba.

During 1985 nearly 33,000 students were enrolled in community college courses. The total includes more than 19,000 students who took certificate, trade improvement, and avocational courses evenings and Saturdays at the three institutions.

UNIVERSITY OF MANITOBA

The University of Manitoba is situated on a 685-acre campus in south Winnipeg and has about 16,250 full-time, 7,550 part-time, and 8,000 summer students. There are four colleges (St. John's, St. Paul's, St. Andrew's and University College) on this main campus. St. Boniface College, situated in St. Boniface, is also affiliated with the university and offers instruction in the French language. Health sciences faculties are located near downtown Winnipeg. There are faculties of Administrative Studies, Agriculture, Architecture, Arts, Dentistry, Education, Engineering, Graduate Studies, Human Ecology, Law, Medicine, Pharmacy, Physical Education, and Science, as well as schools of Art, Dental Hygiene, Medical Rehabilitation, Music, Nursing, and Social Work, the Natural Resources Institute, and Continuing Education division.

BRANDON UNIVERSITY

Brandon University was established in 1967. Formerly Brandon College, it is situated in the city of Brandon, about 210 kilometres west of Winnipeg. The university offers three and four-year undergraduate degrees in Arts, Science, Education, and Music, and master's degrees in Music. Brandon University has about 1,350 full-time and 1,430 part-time students.

UNIVERSITY OF WINNIPEG

The University of Winnipeg, with about 2,950 full-time and 4,200 part-time students, was founded in 1967, but its history as United, Wesley, and Manitoba Colleges goes back more than 100 years. Located near downtown Winnipeg on Portage Avenue, its campus is one of the city's landmarks. The university offers three and four-year undergraduate degrees in arts, science, and education, studies in its collegiate and theology divisions, and a limited number of graduate programs in association with the University of Manitoba.

TEACHER EDUCATION

Teacher education programs are available at the University of Manitoba, Brandon University, University of Winnipeg, and St. Boniface College. A vocational-industrial teacher education program is offered at Red River Community College.

Generally, a Professional teaching certificate is offered to four-year graduates of the B.Ed. degree program. In addition, vocational-industrial, business education and industrial arts certificates are issued. Clinician certificates are issued to school psychologists, reading specialists, speech and hearing therapists, school-based social workers, physiotherapists, and occupational therapists. Three new certificates were issued in 1985: a special education certificate, a level 1 school administrator's certificate and level 2 principal's certificate.

HEALTH AND SOCIAL SERVICES

Manitobans receive prepaid hospital and physician's care through the Manitoba Health Services Commission. There are no premiums for these services in the province. Manitoba also has a pharmaceutical reimbursement program that provides for payment of 80 per cent of the cost of all prescription drugs in excess of a basic deductible incurred by an individual or family in each calendar year. Details of these programs may be obtained from the Manitoba Health Services Commission, 599 Empress Street, Winnipeg R3C 0T3.

Manitoba Health operates comprehensive services in public and mental health. The department's public health programs include dental services (and children's preventive dental care), maternal and child health, hearing screening and diagnosis, public health

nursing, communicable disease control, nutrition and home economics, home care and environmental health. The department is also responsible for large health care institutions, such as hospitals, personal care homes, and mental health centres — except for the Manitoba Developmental Centre (for the mentally handicapped), which comes under Community Services. The Alcoholism Foundation of Manitoba, which reports to the Minister of Health, operates residential and outpatient alcoholism and drug abuse treatment programs.

Manitoba Community Services operates mental retardation services, rehabilitation services, and child and family services. The department licenses, inspects and sets care standards for group homes, other residential care homes and day care centres. Manitoba Community Services operates six correctional institutions and two work camps for adults, three correctional centres for juveniles, and one institution for children in care under the Child and Family Services Act. It also provides probation and field services for the courts. The department financially supports a wide range of non-government social service agencies and care providers (such as day care centres).

Manitoba Employment Services and Economic Security operates provincial welfare programs and financial support services for pensioners and low-income working families with children. The department also operates employment services for youth and students, a wide variety of training and employment preparation programs, and settlement assistance programs for immigrants.

FINANCE

For the fiscal year ending March 31, 1987, the Province of Manitoba has estimated revenues at $3,380,200,000 and expenditures of $3,869,600,000 for a projected deficit of $489,600,000.

The largest single revenue source is individual and corporation income tax, estimated at $866.2 million for 1986-87. Other taxes, such as those on gasoline and motor fuels, parimutuels, retail sales, and resources, were estimated at $1,020.3 million. Fees and other revenues will generate $172 million and revenues from the Manitoba Liquor Control Commission were forecast at $145 million. Unconditional transfer payments and shared-cost receipts from the federal government, covering education, health and community services, economic development, and other items, were estimated at $1,176.8 million.

More than half of the Manitoba government's expenditures go toward education, health, and social services.

RESOURCES

FISHERIES

Manitoba's interior location is belied by the importance of its fisheries resources, which stem from an abundance of water in the form of lakes and streams that cover 16 per cent of the area of the province. Manitoba's fisheries were worth about $19 million in 1984-85.

The commercial fisheries exploit an estimated 57,000 km^2 of water. The largest water bodies — Lakes Winnipeg, Winnipegosis, and Manitoba — together produced 70 per cent of the 1984-85 commercial catch of 13.8 million kilograms. Most of the commercial catch is processed by the Freshwater Fish Marketing Corporation and exported to the United States. Whitefish, pike, walleye, and sauger predominate among the 14 species or groups of species that enter into the commercial catch.

Walleye, pike, and several kinds of trout are the principal sport fish. In 1984-85, 188,200 angling licences were sold in Manitoba.

Fisheries administration is under the control of the Department of Natural Resources. Conservation officers of the department enforce regulations. Biologists conduct studies to monitor, and extend knowledge of, the fisheries resources.

FORESTRY

Almost 51 per cent (334,440 km^2) of Manitoba's total area of 649,947 km^2 is officially classified as forest land, more than three times the amount of land devoted to agriculture. Twelve areas, containing 16,000 km^2, are set aside as publicly owned provincial forests, specifically for the production of forest products. The greater part of the remaining forest land is also owned by the province.

The most common tree species, in order of present volume, are black spruce, trembling aspen, jack pine, white spruce, balsam poplar, and white birch. Balsam fir, tamarack larch, eastern cedar, bur oak, white elm, green ash, basswood, cottonwood, Manitoba maple, red pine, and white pine are also found, primarily in southern Manitoba.

The forest industry employed approximately 11,500 people directly and indirectly in 1985. The total value of production of wood-using industries, including logging and primary and secondary manufacturing, was about $500 million.

At total of 1.6 million cubic metres of wood were harvested from Crown land in 1985, with pulpwood and sawlogs providing more than 90 per cent of the end use. Wood pulp and paper is by far the most important of the primary wood-using industries and sawmilling is second. Secondary industries in Manitoba manufacture a wide range of wood and paper products, from doors and caskets to asphalt roofing and bags. Most of these products are sold within the province. Pulpwood, kraft paper, newsprint, and lumber are important export products, sent to other provinces and the United States.

Through sophisticated communications and mechanical equipment and highly trained crews, Manitoba protects its forests and communities against forest fires, and can move quickly to attack fires when they break out. Fire-risk areas of the province are divided into seven patrol blocks, totalling 233,098 km^2. Aircraft with fire detection observers on board fly designated patrols in these regions throughout the fire season, as determined by the fire weather index.

In 1985 Manitoba experienced 346 forest fires, of which 135 were caused by lightning and 211 by people. A total of 321,705 acres were burned.

The province operates two provincial nurseries, at Hadashville east of Winnipeg and near The Pas, as part of its programs to improve and increase seedling production and reforestation of land. In 1985, about 11,770 acres were reforested; expansion of the capacity of the nurseries is expected to result in a great increase in seedling production by 1989.

LANDS

There are approximately 135.5 million acres of land in Manitoba, of which some 34.1 million acres are privately owned. The remaining 101.4 million acres are public (Crown) land, of which nearly 2 million acres are in national parks, Indian reserves, etc., and 99.4 million acres under the jurisdiction of the province.

Most provincial Crown lands are unsurveyed and unsuitable for cultivation. Manitoba Agriculture administers agricultural Crown land leases, but nearly all other surface leases and all Crown land sales are administered by the lands branch of Manitoba Natural

Resources. Underground mineral and petroleum leases are administered by the mines branch of Manitoba Energy and Mines.

Crown lands that lie outside provincial parks, forest reserves or other designated areas are available for sale for agricultural, commercial, recreational, and residential uses, provided that such uses conform to approved sale policy then in effect.

Commercial, industrial, recreational, residential, and miscellaneous leases, permits, as well as easements and licences, are available for a wide variety of Crown land uses. The use of Crown land for intensive cottage development (outside designated parks) is administered by the lands branch of Manitoba Natural Resources. The branch also operates a comprehensive wild rice administrative-management program: a licensing system on Crown-owned lakes and assistance to producers through extension services and research.

Agricultural contracts administered by Manitoba Agriculture include forage leases, cash rental leases for cultivation, hay permits, and casual-use agricultural permits. They may be for short or long term, depending on the particular lease and the location of the land (approximately 2 million acres). The department also operates a land-clearing and breaking program on lands under long-term leasehold.

Private lands may be available from municipalities, private landowners, or mortgage companies. For further information on Crown lands, write the lands branch, Manitoba Natural Resources, 1495 St. James Street, Winnipeg, Manitoba R3H 0W9.

MINERALS

The total value of Manitoba's 1985 mineral production was an estimated $832.9 million, an increase of two per cent or $16 million over 1984. Metals accounted for 65.5 per cent of the total value of production, followed by petroleum (21.7 per cent) and industrial minerals (12.8 per cent).

In 1985 nickel production at Inco's Thompson operations decreased to an estimated 37.9 million kilograms from 40.7 million in 1984. 1985 was a transition year between the closure of the Pipe open-pit mine in 1984 and the scheduled opening of a new pit at Thompson. In addition, Inco produces copper, cobalt, and precious metals by-products.

Copper production in 1985 was 67.7 million kg and zinc production 63.4 million kg, compared with 67.2 million and 35.5 million respectively in 1984. Besides being associated with nickel ores, copper is found with zinc at the mining operations of Sherritt Gordon Mines and Hudson Bay Mining and Smelting Co.

Copper and zinc concentrates from Hudson Bay's Flin Flon and Snow Lake ores are processed at the company's copper smelter and zinc refinery in Flin Flon to produce copper anodes, refined zinc, and cadmium. The copper anodes, which contain small amounts of gold, silver, selenium, and tellurium, are shipped to Montreal for refining. Lead concentrates from Hudson Bay's Snow Lake mill are shipped to Trail, B.C. for additional processing. In 1985, copper concentrates from Sherritt Gordon's Ruttan mine were smelted in Flin Flon and Noranda, Quebec, and copper and zinc concentrates from the company's Fox mine and zinc concentrates from Ruttan were shipped to Flin Flon for additional processing.

During 1985 operations at Tantalum Mining Corporation's Bernic Lake mine northeast of Winnipeg remained suspended because of poor market conditions. The Bernic Lake pegmatite also contains the world's largest reserves of cesium ore, and a number of other rare minerals of potential market value. During 1985 Tanco began producing spodumene concentrates. This is a highly refined lithium oxide product, which can be used directly as a feedstock for the manufacture of such items as pyroceramic sanitary ware and cookware, and specialty glassware.

Crude oil production in 1985 increased four per cent over 1984, to 825,000 cubic metres, valued at $180 million. During 1985, 268 wells were drilled, compared with 246 in 1984 and 247 in 1983. In 1985, 231 wells were completed as potential oil wells, resulting in an 86 per cent success rate. All production is from oil fields in southwestern Manitoba, particularly around the Virden, Daly, and Waskada areas. The latter two areas continued to be the centre of exploration and development. As of December 31, 1985, total remaining established crude oil reserves are estimated to be 8.8 million cubic metres.

Industrial minerals quarried in Manitoba include a wide variety of raw materials for the construction industry and for specialized uses. Portland cement is produced at Fort Whyte, near Winnipeg, using local clay, and silica sand and limestone quarried near Steep Rock. Limestone is also quarried north of Mafeking and lime is produced from a rotary kiln at Faulkner. Dolomitic limestone is quarried at Garson for Tyndall building stone. Dolomite, for crushed rock, is quarried in the Interlake and elsewhere and granite (for monumental and building stone) near Pinawa and Whitemouth. High-quality silica sand quarried on Black Island in Lake Winnipeg is used principally in glass making, as foundry sand, for sand blasting, and as a filtering medium. Sand and gravel for the construction industry are extracted from numerous pits, mainly in the populated regions of Manitoba.

Stoneware clay from the Ste. Rose du Lac area and shale from the Pembina Mountain area are used with sand in the manufacture of face-bricks. Non-swelling bentonite, used mainly in the clarification of petroleum and vegetable oils, is quarried near Morden, the sole production in Canada. In 1985, peat moss was harvested mainly for horticultural purposes from four bogs east of Winnipeg and another near Giroux in the southeast.

During 1985 government geoscientific activities continued to be funded, co-ordinated and facilitated under the five-year Canada-Manitoba mineral development agreement (1984-89). As in previous years, emphasis was on assisting the search for ore deposits in the Lynn Lake and Flin Flon-Snow Lake regions and on raising the level of exploration activities elsewhere in Manitoba. Precambrian geological mapping programs and mineral deposit studies were also conducted in the Rice Lake, Bissett, Thompson, Cross Lake, Pipestone Lake, Gods Lake, and Island Lake areas. Stratigraphic mapping and drill core hole programs were continued in the Moose Lake, Cormorant Lake and Dawson Bay areas and southeastern Manitoba. Regional industrial mineral resource programs were carried out in several regions. These included evaluation of a wide range of potentially exploitable commodities: dimension stone, soapstone, peat moss, pegmatite minerals, silica sand, bentonite, kaolin, glauconite, gypsum, cement rock, and abrasive and refractory materials such as garnet, staurolite, kyanite, and sillimanite. Geological mapping and investigations of aggregate resources were carried out in the rural municipalities of South Norfolk, Shellmouth, and Roblin, and the local government district of Reynolds.

WILDLIFE

Manitoba is inhabited by more than 350 different species of wildlife, including several species of game birds and animals. Upland game birds such as sharp-tailed grouse, ruffed grouse, spruce grouse, and ptarmigan are common in forested areas, while introduced birds such as gray (Hungarian) partridge and wild turkeys inhabit the agricultural prairie. Migratory game birds include the abundant Canada, snow, and blue geese, white-fronted geese, and numerous species of ducks, sandhill cranes, coots, snipe, and rails. Big game animals vary from white-tailed deer and elk, abundant in the south, to the more northerly moose, caribou, black bear, and timber wolf.

Wildlife conservationists protect and manage game birds, big game, furbearers, small

game, reptiles, amphibians, and other protected species through maintenance and enhancement of their habitat (public land refuges and wildlife management areas) and private land habitat maintenance incentives. Hunting and trapping are regulated and controlled by way of seasons and bag limits, thus ensuring limited harvest which is another method of protection. Agriculture is safeguarded through programs aimed at minimizing game bird and big game damage to crops and stored products.

The provincial wildlife branch provides legal protection for 28 species of animals, 45 species of birds, seven reptiles, and four amphibians. Migratory birds are protected under the Migratory Birds Convention Act, administered in co-operation with the Canadian Wildlife Service. Manitoba's sea-dwelling beluga whales and four species of seals are protected by the federal Fisheries Act.

Manitoba has 59 wildlife management areas, covering 29,540 km^2, which through habitat protection support a great diversity and abundance of wildlife. The largest, Cape Churchill Wildlife Management Area (18,778 km^2), has large numbers of polar bear, woodland caribou, Canada geese, and snow geese. By contrast, some smaller areas in southern Manitoba, containing native prairie plants, grouse, and small mammals, may be only 160 acres in size. Public use compatible with wildlife maintenance is encouraged.

In 1985-86 provincial wildlife programs accommodated 86,000 hunters (80,000 resident and 6,000 visitors) and 800 guides. In addition, 250,000 other Manitobans participated in some form of wildlife-oriented activity during the year.

Manitoba's 15,000 trappers harvested $4.7 million of wild fur in 1985. This included $290,000 worth of lynx pelts; fisher, $670,000; red fox, $370,000; coyote, $715,000; muskrat, $590,000; beaver, $980,000; marten, $325,000; and mink, $445,000.

TOURISM, RECREATION, AND CULTURE

Manitoba offers the resident and the traveller year-round attractions and activities, both outdoor and indoor, in all parts of the province.

Vacationers can obtain accommodations and services at all price ranges, from government-operated or private campgrounds to first-class hotels. For persons driving on Manitoba highways, the parks branch and Highways department have established dozens of roadside areas where picnic tables are available for wayside stops. Larger parks and golf courses are found throughout the province, and there is excellent angling, canoeing, camping, and hunting. Fly-in fishing camps are located in eastern and northern Manitoba.

Among the cultural and tourist attractions in the Winnipeg area are the Museum of Man and Nature, the Winnipeg Art Gallery, the Planetarium, the Legislative Building, the Winnipeg Mint, St. Boniface Museum, Lower Fort Garry, Assiniboine Park and Zoo, and Kildonan Park. A vintage steam train carries passengers in summer, and from mid-May to mid-October a number of large passenger ships cruise the Red and Assiniboine Rivers. In season, it is possible to attend performances of the Royal Winnipeg Ballet, Manitoba Opera Association, Rainbow Stage, Winnipeg Symphony Orchestra, Manitoba Theatre Centre, Prairie Theatre Exchange, and Contemporary Dancers Canada and games of the Winnipeg Jets (National Hockey League) and Winnipeg Blue Bombers (Canadian Football League).

There are about 130 museums in large and small communities throughout the province, 30 in Winnipeg alone. Pioneer heritage, history (cultural, ethnic, community, natural history), science, sports, agriculture and farm implements, shipping, clothing, mining, and automobiles are among the many subjects around which museums have been developed. Many museums are open year-round, but others are seasonal in operation.

Manitoba has close to 50 festivals that reflect the richness of its natural resources and the various cultural backgrounds of the people. All are fun-filled events with contests, special foods, and celebrations. Outstanding among them in summer are the Provincial Exhibition of Manitoba in Brandon, Folklorama in Winnipeg, the Icelandic Festival in Gimli, the Winnipeg Folk Festival, Canada's National Ukrainian Festival in Dauphin, Opasquia Indian Days in The Pas, Pioneer Days in Steinbach, York Boat Days in Norway House, Thompson Nickel Days in Thompson, the Morris Stampede in Morris, the Trout Festival in Flin Flon, the Fête Franco-Manitobaine in La Broquerie, the Threshermen's Reunion in Austin, and the Corn and Apple Festival in Morden. Winter brings the Festival du Voyageur in St. Boniface, the Trappers' Festival in The Pas, the Canadian Power Toboggan Championships in Beausejour, and the Royal Manitoba Winter Fair in Brandon.

The Department of Business Development and Tourism has complete information on tourist attractions in Manitoba. Persons seeking information should indicate the areas of the province and the features in which they are interested or would like to see. Pamphlets, brochures, and other information may be obtained from Travel Manitoba, Dept. 6014, Winnipeg, R3C 3H8.

INTERNATIONAL PEACE GARDEN

The International Peace Garden is located 25 kilometres south of Boissevain in the Turtle Mountains and straddles the Manitoba-North Dakota boundary. It was created as a result of efforts by citizens of both Canada and the United States and is operated by a committee of Canadians and Americans.

The park includes 1,451 acres of Manitoba and 888 in neighbouring North Dakota, developed with small lakes, ornamental spillways, terraced gardens, picnic sites, an arboretum, pavilion with dining facilities, hiking trails, and extensive gardens. There are also facilities for athletic training and an international music camp.

The dedication for the garden reads: "To God in His Glory we two nations dedicate this Garden and pledge ourselves that as long as men shall live we will not take up arms against one another." When the garden was opened in 1932 there were 50,000 people in attendance from both countries.

NATIONAL PARKS AND HISTORIC SITES

Riding Mountain National Park is one of the most popular national parks in Canada. Located 270 km northwest of Winnipeg and 100 km north of Brandon, the park contains 2,978 km^2 of rolling woodland, lakes and streams. Most activities centre on Clear Lake, the largest lake in the park, and the modern resort community of Wasagaming, with a scenic 18-hole golf course, tennis, swimming, boating facilities, modern lodges, and fully equipped campgrounds among its attractions. An interpretation centre offers displays and programs on the area's natural and human history. The park has a well-developed system of nature and hiking trails, totalling about 425 km, for the hiker and wilderness camper, and many trails can be explored on horseback. Wildlife is plentiful in the park and easily observed. Large numbers of elk and moose, as well as their chief predator, the wolf, roam throughout this vast nature preserve. The park is also home to Manitoba's bison herd, pastured at Lake Audy. A few of the 75 lakes have excellent fishing for pickerel, pike and stocked trout and campgrounds are conveniently located to serve as bases of operations. For winter enthusiasts there are 21 cross-country skiing and snowshoeing trails. There are also ice-fishing on Clear Lake, downhill skiing at Mount Agassiz on the eastern slopes of Riding Mountain near McCreary, and limited snowmobiling in the Wasagaming area.

Two National Historic Parks and three National Historic Sites in the province preserve and illustrate important aspects of Manitoba's history and way of life before 1870. The best known is Lower Fort Garry, 32 km northeast of Winnipeg on the Red River. The massive stone fort, which never saw a battle, was built in the 1830s to give the Hudson's Bay Company a headquarters safe from Red River floods. Used by the company until 1911, Lower Fort Garry was an important part of life in Red River before the formation of Manitoba and has been restored in recent years to depict fur trade and Red River Settlement conditions of the mid-19th century.

Riel House, in the St. Vital area of Winnipeg, was the home of the Riel family (though not of Louis Riel) from 1881 to 1968. It has been restored and furnished as a mid-1880s residence, and displays on the site portray the land tenure system prevailing in Red River Settlement days.

St. Andrew's Rectory, on the Red River northeast of Winnipeg, commemorates the role of the early Anglican missionaries in Red River. The building's exterior has been restored to 1850s appearance, and inside are exhibits that trace the history and influence of the Church Missionary Society in the community.

York Factory and Fort Prince of Wales, both on Hudson Bay, recall the days of the fur trade and of French-British rivalry for possession of Canada. York Factory, at the mouth of the Hayes River, was the site of several forts, the first of which was built in 1682. For some decades in the 19th century, York Factory was the transshipment point for furs from the interior and goods from overseas, but after 1860 it declined to a local post although it continued in use until 1957. Fort Prince of Wales, opposite Churchill at the mouth of the Churchill River, was begun in 1731 as the second Hudson's Bay Company attempt to build a fort on the site. Not completed until 1771, it was destroyed by the French in 1782 and lay virtually abandoned until partial restoration starting in the 1930s. Fort Prince of Wales can now be visited by boat from Churchill.

RED RIVER CORRIDOR PARKS

Under a 10-year Canada-Manitoba program, a new parks system is being developed in the Winnipeg area, in conjunction with restoration of historic sites and buildings from Red River Settlement days. The Red River Corridor extends from St. Norbert, on the southern outskirts of Winnipeg, to Netley Creek, north of Selkirk, and includes sites in St. Norbert, downtown Winnipeg, along the Red River Road between Winnipeg and Selkirk, Lockport, and Netley Creek. When completed, the riverfront parks will have walking and bicycling trails, picnic areas, interpretive displays, restored sites, and museums exhibiting aspects and artifacts of Red River life before 1870.

Ten projects have been completed and two more, in St. Norbert, are expected to open in 1986. Planning for the development of a heritage park at the forks of the Red and Assiniboine Rivers (once the site of fur trading posts) is well advanced, and the program has been extended to March, 1988 to permit completion of this major historic park.

PROVINCIAL PARKS

The Parks Branch of the Department of Natural Resources maintains a system of recreation areas that cover more than 15,000 km^2. The system comprises a wilderness park, 10 natural parks, 44 recreation parks, more than 100 wayside parks, five heritage parks, and two special-use parks. There are 101 campgrounds, with 6,904 campsites, and a number of hunting and fishing lodges, cabins, and hotels. Approximately 5,000 additional campsites are managed by private operators, and almost 100 commercial ventures provide services that range from marinas to restaurants.

All the major recreational centres are accessible by road. Many have self-guiding trails, hiking trails and designated canoe routes, and facilities for picnicking, swimming, or camping. Golfing, fishing, and horseback riding are available in a number of parks. To accommodate the growing numbers who take part in winter activities, downhill ski areas, cross-country ski trails, snowshoe trails, toboggan runs, and snowmobile trails have also been built.

The largest natural park is Whiteshell, which covers about 2,735 km^2 and lies next to Ontario about 145 km east of Winnipeg. It is the oldest, the most developed, and the most intensively used park in Manitoba, with 17 campgrounds and 24 picnic areas. At Alf Hole Goose Sanctuary near Rennie, visitors may watch about 200 Canada geese that visit each spring. The visitor services centre here has an observation gallery, exhibits, and displays. West Hawk Lake, with a maximum depth of 111 m, is the deepest lake in Manitoba. It is believed to have been created by the impact of a meteor. At Bannock Point are petroforms consisting of stones arranged on the base rock by ancient peoples to depict turtles, snakes, fish, and birds. A plaque at Nutimik Lake commemorates these boulder mosaics. Also at Nutimik Lake is a natural history museum housed in a log cabin. The townsite at Falcon Lake is adjacent to an 18-hole golf course and close to a marina, ski resort, and stables. Within the town are bowling greens, tennis courts, and a shopping centre.

Atikaki Provincial Wilderness Park, covering more than a million acres, is the first park of its kind in Manitoba. Located northeast of Bissett, north of the Whiteshell, it is accessible only by air and water. In the Atikaki wilderness, caribou and bald eagles still outnumber people and the rivers, offering challenging whitewater rafting, are the only highways into the park.

Beaudry Provincial Heritage Park, 20 km west of Winnipeg, is situated in the midst of a prairie landscape on the Assiniboine River. Remnants of the fast-disappearing tallgrass prairie still grow in the park, while the river-bottom forest contains some of the oldest and largest elm and cottonwood trees in the province. Plans are being made to re-establish even more of the scarce tallgrass prairie vegetation in the park.

Asessippi Provincial Park lies in a river valley 19 km north of Russell. Within the park are the historic sites of Asessippi Town and the Shell River Mill.

Baldy Mountain (831 m), Manitoba's highest elevation, is in the southeast corner of Duck Mountain Provincial Park, and is accessible by road. A sundial and two plaques on Copernicus Hill commemorate the achievements of the astronomer Copernicus.

Grand Beach Provincial Park, 92 km north of Winnipeg, has one of the most spectacular beaches in Manitoba, a legacy of the glacial Lake Agassiz.

In Grass River Provincial Park, about 75 km north of The Pas, is the southernmost evidence of permafrost features. The park has a herd of woodland caribou, about 150 lakes, and a low density of development, and is designated as a wilderness area.

Water-oriented Hecla Provincial Park is on the west shore of Lake Winnipeg, about 145 km north of Winnipeg. The park comprises Hecla Island (settled in 1876 by a large group of Icelanders), Black Island, and a small archipelago nearby. Hecla Village is undergoing preservation work and a self-guiding trail through the village interprets the Icelandic settlers' way of life. A major resort, with a golf course, is located at Gull Harbour on the northeast tip of Hecla Island.

Spruce Woods Provincial Heritage Park, 65 km southeast of Brandon, is on an ancient delta formed when the Assiniboine River flowed into Lake Agassiz. The features of the park include the Manitoba "desert," oxbow lakes, and some endangered species of fauna and flora. A plaque commemorates Pine Fort, a fur-trading post occupied on three separate occasions between 1767 and 1811, which lies within the park.

Clearwater Lake Provincial Park, 19 km north of The Pas, derives its name from Atikameg, an Indian word meaning "clear water." At times the visibility in Clearwater Lake is about 11 metres. Along the shore is ample evidence of the former levels of the lake, in the numerous coves now above the water line, occupied by colonies of nesting birds.

Birds Hill Provincial Park was established in 1967 to meet the need for recreational areas close to Winnipeg, 24 km away. Open year-round, the park has large grassed areas for group activities in summer and winter, including the annual Winnipeg Folk Festival.

"Nopiming," a Saulteaux word meaning "into the wilderness," accurately depicts the numerous lakes and rivers and abundant wildlife in Nopiming Provincial Park, 210 km from Winnipeg and north of Whiteshell. Woodland caribou normally found in more northern regions are an exceptional feature of the park, as are the remains of once-productive gold mines.

Turtle Mountain Provincial Park, about 80 km south of Brandon, has more than 400 water bodies, ranging from small potholes to large lakes several acres in area. Fishing is limited to Max Lake, which is periodically stocked with northern pike. The painted turtle is a common sight in this area.

The 44 provincial recreation parks are spread across the province from north to south. The largest of these parks is Paint Lake, near Thompson.

All vacation and recreation areas are periodically expanded to provide additional camping and day-use facilities. Park programs are geared to preserve and interpret sites that reflect the human and natural history of Manitoba. Studies are made to plan and guide the development of the province's recreational facilities.

Detailed and up-to-date information on Manitoba's provincial parks can be obtained by calling (204) 945-6784.

NOTES

Manitoba's Flag

The official flag of the Province of Manitoba was given royal approval by Her Majesty Queen Elizabeth II in October, 1965, and was officially proclaimed May 12, 1966. This was the date in 1870 on which the Manitoba Act was given royal assent.

The flag is the Red Ensign, on which the Union Jack is placed in the upper quarter on the "staff" side, while the provincial coat-of-arms is centred in the "fly" half of the flag.

The Manitoba flag may be flown by any individual or organization in the province, but precedence is given to the Canadian flag.

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